A Time for Learning
A Time for Joy

A Resource for Kindergarten Teachers

Manitoba

A Time for Learning, A Time for Joy:

A Resource for Kindergarten Teachers

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Educators, Students, and Parents

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Manitoba Education and Advanced Learning also acknowledges the writers and development teams for the 1979 and 1986 versions of this resource.

Early Childhood: A Time for Learning, A Time for Joy (1979)
Betty Gibson, Writer

The Early Years: A Time for Learning, A Time for Joy: A Sourcebook for Kindergarten, Grade 1, and Grade 2 (1986)
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Introduction

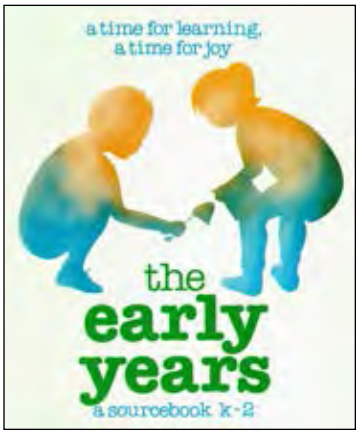
Our Vision

Manitoba's Kindergarten learning program offers our youngest students a joyful introduction to school through intentional play-based and developmentally appropriate learning experiences that respect children* as capable, motivated, and confident learners and that foster children's health across all *developmental domains*.

"Let us put our minds together and see what life we can make for our children" (Sitting Bull)

Manitoba Education and Advanced Learning supports an integrated, child-centred approach to education and learning, recognizing that young children learn through play and through relationships with caring adults and each other. The department acknowledges the valuable work being done in schools and Kindergarten classrooms across Manitoba, and the dedication of Kindergarten teachers throughout the province in creating inclusive learning environments that support the success of every student.

Purpose and Audience



Manitoba Education and Advanced Learning developed *A Time for Learning, A Time for Joy: A Resource for Kindergarten Teachers* to provide Kindergarten teachers and school leaders with a play-based pedagogical approach to Manitoba's Kindergarten curriculum. This resource is intended to be practical and inspiring, developmentally appropriate, engaging of families, and congruent with children's early learning experiences prior to school entry.

This support document builds on earlier versions of *A Time for Learning, A Time for Joy*. In 1979, Manitoba Education published the original version entitled *Early Childhood: A Time for Learning, A Time for Joy,* followed in 1986 with an updated version entitled *The Early Years: A Time for Learning, A Time for Joy: A Sourcebook for Kindergarten, Grade 1, and Grade 2*. The purpose of these resources was to assist Manitoba's Early Years teachers in providing young children with a rich and stimulating environment that promotes growth and learning. In the 1970s and 1980s, the department encouraged Early Years teachers to move toward a play-based learning approach, but in the decades that followed, the pedagogical pendulum swung toward a focus on subject matter to be mastered, and Kindergarten became far more academic.

* Throughout this support document, the term *children* refers to young children in the period of early childhood development, from birth through approximately age eight, as a reminder of the unique developmental characteristics of these young students.

The Importance of Play*

- expands intelligence
- is a testing ground for language and reasoning connecting to the challenges children face in school, such as literacy, math, and science concepts
- stimulates the imagination, encouraging creative problem solving
- helps develop confidence, self-esteem, a sense of strengths and weaknesses, and a positive attitude toward learning
- is a significant factor in brain and muscle development

* Source: McCain, Margaret Norrie, J. Fraser Mustard, and Stuart Shanker. *Early Years Study 2: Putting Science into Action*. Toronto, ON: Council for Early Child Development, Mar. 2007. 49. Reproduced with permission.

Today there is an increasing appreciation for a holistic, play-based approach to early childhood education. Based on recent neuro-scientific research, play is validated as children's natural way to learn.

Emphasizing play-based learning, intentional teaching, and an integrated approach to the Kindergarten curriculum, this revised and updated version of *A Time for Learning, A Time for Joy: A Resource for Kindergarten Teachers* reaffirms the child-centred approach that Manitoba's early childhood teachers have embraced for over a century. This resource links playful learning with children's family and cultural experiences, with their neighbourhoods and communities, and with children's own developing identities as successful learners within their peer group of friends.

Learning Landscapes: The Manitoba Curriculum and the Classroom Environment

Throughout this support document, you will note the use of the term *learning landscapes*. The purpose of learning landscapes is to support you in your planning, using Manitoba's Kindergarten curriculum in a play-based environment. The landscapes support the way you plan to address the provincial Kindergarten curriculum. You can think about the concept of landscapes as both content and context. The various curricula themselves and the classroom environment are learning landscapes—both provide fertile ground through which children explore and engage in meaningful inquiry.

"Education is a lifelong journey whose destination expands as you travel" (Stovall 59).

As you examine the questions in Figure I.1, think about the learning landscapes as common ground that supports the multiple ways children have of knowing. Learning is possible when you use children's questions as sparks for your long-range and daily planning. The landscapes present you with deep and meaningful contexts and many directions through which you can plan children's journeys. As is the case with any journey, however, flexibility is essential, as it allows you to respond to unanticipated learning opportunities that may emerge along the way, as well as the suggestions of your fellow travellers—the children in your classroom.

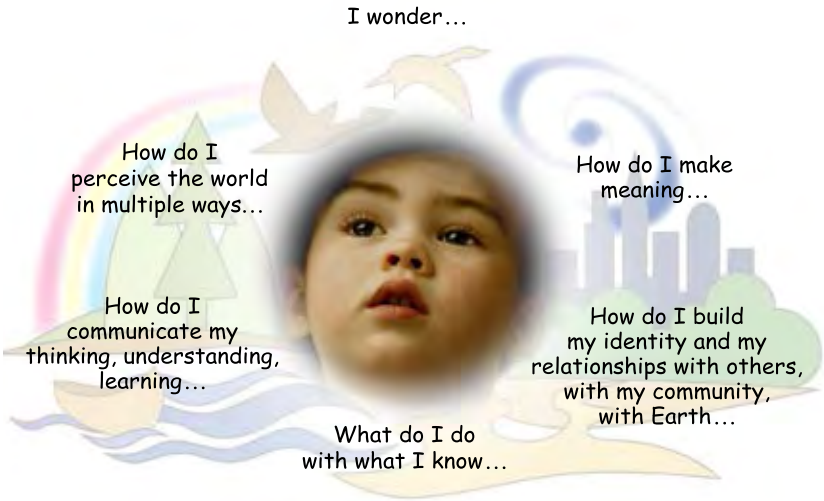


Figure I.1:
A Child's Multiple Ways of Knowing within the Learning Landscapes

Guiding Principles

The Kindergarten guiding principles that provide the overarching structure for this document are represented in Figure I.2 in a circle around the child, the centre of all we do. The guiding principles are of equal importance. Within this document, the guiding principles are identified with a star icon.

Figure I.2:
The Kindergarten Guiding Principles

The Child

Children learn in a variety of ways, and teachers value their many ways of understanding and constructing knowledge. Children come to school with their own experiences, social relationships, and abilities, are naturally curious, and are constantly learning.

The Teacher

Kindergarten teachers are passionate about the opportunity to teach and learn with our youngest students and intentionally create joyful, nurturing, and engaging learning environments that welcome all children.

The Environment

The Kindergarten environment allows complex, rich play to thrive. It is a warm and inviting place where children and adults inquire, learn, and co-construct together.

The Schedule

Kindergarten scheduling is responsive to children's changing needs, allowing a developmentally appropriate curriculum to emerge over time.

The Learning Program

The Kindergarten learning program provides opportunities for child-initiated play supported by engaged and intentional teachers, in balance with more focused experiential inquiry guided by teachers.

Inclusion and Diversity

Kindergarten experiences reflect the diversity of children, families, and colleagues, and actively promote inclusion.

Partnerships and Continuity

Kindergarten teachers honour children's families and communities, recognizing that children interact with and learn in a variety of contexts and that family engagement in children's learning is a critical support for their school success. The continuity of children's past, present, and future learning is best supported through coordinated home, school, and community approaches.

Using This Document

Document Content and Organization

This Kindergarten support document contains the following components:

- This **Introduction** presents the vision for Manitoba's Kindergarten learning program and identifies the purpose of this teacher support document. It also explains the concept of learning landscapes, identifies the guiding principles of this teacher resource, and describes the content and organization of this document.
- **Chapter 1: Kindergarten in Manitoba: Past and Present** provides background information on the evolution of Kindergarten in Manitoba and discusses some of the key influences and milestones in its history.
- **Chapter 2: A Foundation in Play** introduces the play-based approach to Kindergarten, beginning with children's entitlement to play. This chapter focuses on the various types of play, and how teachers who embrace a playful pedagogical approach to learning and teaching foster children's development across all developmental domains through play.
- **Chapter 3: The View of the Child** reflects on ideas about childhood and defines what is meant by developmentally appropriate practices. This chapter highlights new understandings of the relationship between play and brain development,

drawn on the latest neuroscience findings, and reviews key child development theories and early childhood approaches to learning. You are encouraged to connect what you know about children's development to the "How" and "What" you teach in an intentional way. This chapter introduces some vital aspects of children's development, including how children become aware of difference, and how oral language, literacy, and numeracy learning unfolds.

- **Chapter 4: Teaching and Learning Strategies** further explains intentionality and shares some of the recommended strategies used by intentional teachers, including scaffolding, modelling and demonstrating, and the use of provocations or invitations for learning. This chapter also explores inquiry-based learning and backward design approaches to Manitoba's Kindergarten learning outcomes in a play-based environment. It also addresses how pedagogical documentation through observations and various ways of gathering and making sense of "data" can help you to plan optimal learning experiences for children. Assessment remains an important feature of play-based learning in Kindergarten but must be authentic in its focus. It includes screening and early identification, development of class profiles, and ways of sharing children's learning with their families. Also included in this chapter is a discussion of strategies that support the full inclusion of children with diverse needs, such as differentiated instruction, adaptation, modification, and individualized programming, followed by concrete suggestions for how you can guide children's behaviour in your classroom in positive ways.

- **Chapter 5: Designing the Learning Environment** discusses the four dimensions of the Kindergarten environment that contribute to learning (Nash 6):
  - **Temporal (time):** The way you manage your schedule and your available time with children in your class.
  - **Space:** The physical dimensions of your Kindergarten classroom.
  - **Things:** The resources found within the environment, including toys, furnishings, learning/play centres,* props, books, and other materials.
  - **People:** The peer group and adults who interact within the environment and the larger school in which the Kindergarten classroom is located.

  A discussion of the use of outdoor space is accompanied by an appeal to get Kindergarten children out into nature more often, where they can experience graduated risk and the feeling of success when they meet physical and problem-solving challenges. This chapter explores the importance of offering children choice and the opportunity to initiate their own learning and recommends play-based learning centres.

- **Chapter 6: Learning through Play** provides the rationale for the play-based approach to learning (first recommended in Manitoba's original Kindergarten curriculum in 1968 and still recommended today). Intentionally planned play centres can promote the provincial curricular goals through the types of materials that are present and the types of learning they invite. This chapter offers a wealth of ideas about how to set up and stock your play centres, including

* In this document, the terms *learning centres* and *play centres* are used interchangeably.

those that are available year round, and those that may be of a more temporary nature to support your emergent curriculum.

- **Chapter 7: The Learning Landscapes** describes the many pathways and questions representing the essence of the Manitoba curriculum.
- **Chapter 8: Play throughout the Kindergarten Curriculum** discusses how to apply planning approaches to specific curricular outcomes as you develop learning experiences for and with children in your Kindergarten. This chapter provides snapshots of the core curricular areas, or big ideas, with many rich examples and useful strategies shared by departmental consultants and classroom teachers. Snapshots are provided for the following subject areas: arts education, English language arts, mathematics, physical education/health education, science, social studies, and English as an additional language (EAL).
- **Chapter 9: The Integratable Elements** follows a format similar to Chapter 8, but highlights the many ways to embed content that further enriches children's play-based learning while meeting departmental priorities. These integratable elements of learning in Manitoba are overarching and integral to your Kindergarten learning program and include
  - First Nations, Métis, and Inuit perspectives
  - education for sustainable development (ESD)
  - literacy with information and communication technology (ICT)
  - diversity education and inclusion
- **Chapter 10: Continuity and Partnerships**, the final chapter, begins with children's experiences with continuity or discontinuity as they transition into school. This chapter pays special attention to the factors that influence family life and, therefore, the child growing up within that family. These factors include newcomer or Indigenous status, divorce and blended families, stress and mental health, and the influence of the media and of children's prior experiences in preschool settings. You are encouraged to look beyond your classroom doors to consider relationships with others who are key to your students' lives, and share strategies to help foster engagement by families and communities, and partnerships with others in the early childhood development (ECD) sector, with related school professionals, and with your Grade 1 colleagues.
- The **Afterword** encourages you to commit to creating play-based Kindergartens and acknowledges your vital contribution to helping children experience joy and success in their learning during the Kindergarten year.
- The **Appendices** found at the end of this document provide additional information, including samples, forms, protocols, recipes, and templates, which may be beneficial to Kindergarten teachers. Specific appendices are referred to in various chapters of this document.

- The **Glossary** defines terms used throughout this document.
- The **Bibliography** consists of resources consulted and cited in the development of this document.

Icons

The following icons are used throughout this document to draw your attention to specific content:

Guiding Principles: The eight guiding principles that provide the overarching structure for this support document are identified with the star icon.

Vignettes: You will learn more about children's playful learning through vignettes or stories from Manitoba Kindergartens, which are scattered throughout this resource. The vignettes, shared by classroom teachers in Manitoba, serve as examples of Kindergarten practices around the province. They are often linked to Kindergarten learning outcomes "to illustrate the potential for open-ended play for curriculum delivery through child-initiated [and adult-supported] play" (Broadhead and Burt 3).

Diversity and Inclusion: Throughout this resource, you have opportunities to explore diversity perspectives, including First Nations, Métis, and Inuit, as well as EAL perspectives.

Reflection: The reflection questions scattered throughout this support document can help you to reflect on important ideas, such as your own image of young learners, your role as a teacher in a play-based classroom, how you create your classroom learning environment, and so on. These questions are helpful for independent reflection and goal setting, for gatherings of teachers during staff meetings, and for professional learning opportunities.

Continue Your Learning: Each chapter of this document encourages you to continue your learning by suggesting a variety of print and online resources about specific topics. The Bibliography also cites an extensive list of resources used in the development of this document.

Chapter 1:

Kindergarten in Manitoba: Past and Present

Chapter 1: Kindergarten in Manitoba: Past and Present

A Brief History of Kindergarten in Manitoba

Kindergarten began in the nineteenth century. It means "a garden for children," a place where children are nurtured and allowed to grow at their own pace.

Some Kindergarten teachers are surprised to learn that Manitoba's Kindergartens have a robust play-based history that stretches back well over one hundred years, although in their early days they operated as social welfare initiatives rather than as part of the public education system. A goal of early Kindergartens was to promote the assimilation of newcomer children to life in Canada, and they provided clothing, meals, and even shelter.

Records show that the Winnipeg Free Kindergarten Association opened a free Kindergarten in a storefront as early as 1892 (Prochner, "A History" 23–24). The Association consisted of upper- and middle-class women who believed in the "reformative" power of Kindergarten to provide relief to the city's disadvantaged children. Winnipeg's free Kindergartens became the best known across Canada. In their earliest days, Kindergartens in Manitoba employed trained teachers who were educated in Chicago and who followed the play-based pedagogical approach promoted by Friedrich Froebel, the founder of Kindergarten. In Froebel's view, "play . . . is the highest expression of human development in childhood, for it alone is the free expression of what is in a child's soul" (Froebel 50).

Free Kindergarten, Swedish Lutheran Church, Winnipeg, 1899.

Source: Archives of Manitoba, Winnipeg—Schools—Free Kindergarten 1 (N5814). Reproduced with permission.

In the early twentieth century, there was no compulsory school law, so Association members believed that Kindergarten would instill a love of learning in young children that would keep them engaged in the years after. Therefore, Kindergarten was available for children six to eight years of age. After Manitoba's compulsory school attendance legislation was passed in 1916, Kindergartens were open to children four and five years of age and might have as many as 70 children per session. Following the First World War, some of Winnipeg's Kindergartens became more influenced by John Dewey's education pedagogy and grew more structured and theme-based (Prochner, *A History*). The Association, which was renamed the Kindergarten Settlement Association in 1915, resisted the movement away from play-based learning. The Association rented

several classrooms from the Winnipeg School Division in the early twentieth century to house additional Kindergartens, but they operated autonomously of the board.

A number of churches also opened Kindergartens as part of their mission work, especially in Winnipeg's North End. Their teachers were also trained, and many worked both in mission schools and for the Association.

All People's Mission Kindergarten, Winnipeg, 1904.

Source: Archives of Manitoba, Winnipeg—Churches—All People's Mission—Maple Street Church 3 (N13261). Reproduced with permission.

Source: Jewish Heritage Centre of Western Canada. Peretz School Kindergarten, morning class, Winnipeg, 1925. Reproduced with permission.

What was the Manitoba Kindergarten experience like in those early days? In 1922, the *Manitoba Free Press* described Kindergarten as follows:

> Taking the circle as a symbol of Unity, the school session is begun each day with the chairs placed in a circle: See the bright picture presenting itself when each small chair is filled with a tiny person wearing an eager, expectant smile. The session begins with each little head bowed to sing their good morning prayer—the child's simple thank you for God's care; next a burst of song, greetings to all, for they dearly love to sing good morning to the sunshine, flowers, animals, etc. The kindergartner [teacher] now plays the piano, several songs of the trade world, nature and home are sung with gestures in a cheery manner. Rhythms follow for about ten minutes, marching like soldiers, front and side skips, imitations of galloping, etc. By such exercises to music the children develop grace and poise of body and self-activity. A chord on the piano tells the children to take chairs to the tables. Here, in groups of ten or so, they are soon as busy as bees. Some make paper flowers, others draw, while others build wonderful castles out of blocks—crude, perhaps, to the adult eye, but praised by the teacher for the effort more than the result. Then comes the story time. Seated on the floor with the smaller children in the front everyone is "all attention" while the teacher expounds the mysteries of fairyland. Games come next. These are for the purpose of developing the sense of sight, hearing, smell and taste. It is now 12 o'clock and the children march out to the singing of "Goodbye, Dear Teacher, Goodbye". . . .
>
> The present kindergarten has an enrolment of 63 children and is supported by the school board, under the directorship of Miss Edith Deacon and an assistant teacher.*

"There is a garden in every childhood, an enchanted place where colours are brighter, the air softer, and the morning more fragrant than ever again" (Lawrence 24).

* Source: *Manitoba Free Press*. "Kindergarten Settlement Association Organized Thirty Years Ago Is Doing Splendid Work." *Manitoba Free Press* [Winnipeg] 21 Oct. 1922: 10. Available on the *Winnipeg Free Press* Archives website at <http://archives.winnipegfreepress.com/winnipeg-free-press/1922-10-21/page-10?tag=kindergarten&rtserp=tags/kindergarten?ndt=by&py=1922&pey=1922> (21 Nov. 2014).

During the 1920s, play was considered the child's natural occupation, necessary for physical and psychological growth; Kindergartens, therefore, existed primarily for socialization. Children were left largely on their own, with time, space, and materials for experimentation. The teacher encouraged self-motivation and self-help and provided suggestions for physical, mental, and sensory activities.

During the 1930s and 1940s, new insights into personality development illustrated the importance of allowing children to express their emotions freely. While play remained the most important activity for children, it also became the vehicle through which emotional growth could be stimulated. The need for children to be dependently secure before they could be independently secure was recognized.

The Free Kindergarten Association worked for decades to secure a place within the public school system for Kindergarten (Prochner, "A History" 37). The official history of the Winnipeg School Division (Chafe) shows that trustees were unreceptive to an appeal made in 1914, but after a second appeal in 1920, the board agreed to pay the salary of a teacher for one term, an arrangement that was renewed annually through the 1920s. It was not until the 1940s, however, that Kindergarten was made an integral part of the system (Chafe 99). The history attributes the slowness of the board to sponsor Kindergartens on a larger scale to concerns about its experimental nature, the shortage of trained Kindergarten teachers, and overcrowded schools. The situation changed with the Second World War, and the number of public schools with Kindergartens in Winnipeg grew from four in 1943 to 37 by 1948 (Chafe 99). By 1958, there were Kindergartens in all schools in the Winnipeg School Division (Prochner, "A History" 38).

In the 1930s and 1940s, the emphasis of Kindergarten changed as more became known about the development of intelligence. Teachers adjusted their approaches to give added attention to language and conceptual growth. Emphasis on sensory and motor development was retained.

The Manitoba government provided grants for Kindergarten children for the first time in 1967, thereby encouraging all school divisions to establish such programming. In 1968, Manitoba Education issued the first Kindergarten curriculum guide, with the following educational philosophy:

> The kindergarten provides a carefully planned program of learning experiences based on knowledge of the common characteristics and needs of this age group, and on the unique potentialities and needs of each child. The program is different from that of the nursery school or the more formal grade one. It is one in which the numerous informal learning experiences help to develop readiness for the various school subjects but it does not include the formal teaching of any one of these.
>
> Basic factors in developing such a program [include] . . . a well-arranged environment that invites exploration in a number of different centres of interest and with a variety of media, toys and material [and] a variety of activities which provide all children with the opportunity of doing something at which they can succeed. (Manitoba Education, *Kindergarten* 7)

Source: Manitoba Education. *Kindergarten.* Winnipeg, MB: Manitoba Education, 1968. 6. Photo: By the Photographic Section, Department of Industry and Commerce, Manitoba Government.

In the early 1970s, the government established an Early Years Program Review Committee, and in 1976, its members determined to revise or replace the Kindergarten curriculum guide. The committee requested that Manitoba Education develop a major resource for the teachers of Manitoba's young children to assist them in providing a rich and stimulating environment for growth and learning. In 1979, the International Year of the Child, Manitoba Education published *Early Childhood: A Time for Learning, A Time for Joy* (written by Betty Gibson).

During the 1980s, Kindergarten and play-based learning were of increasing interest to both the Manitoba government and the Manitoba Teachers' Society (MTS). In 1982, MTS published *Kids! A Study of Manitoba Kindergartens: Programs and Services,* rejecting "the prevalent trend towards hurrying children away from the enriching aspects of play and into the narrower confines of 'real work'" (ix). MTS also rejected "the anticipatory notion held by some teachers of preparing children at every level for the one that follows. This practice never allows children to focus on the now, upon the wonders of today and living it to its fullest" (ix). Instead, MTS promoted an early childhood philosophy based on the needs and interests of the child, centred on play, group activities, an informal atmosphere, and lots of language (ix). In 1984, MTS published *Kindergarten and Nursery Teachers Needs Assessment Report*, which identified pre-service and in-service needs of early childhood teachers.

In 1985, the Manitoba government conducted a Manitoba Kindergarten Assessment, which examined Kindergarten classrooms in English language, French immersion, and heritage language programs, as well as classrooms in Franco-Manitoban schools. Recommendations included increasing the size of Kindergarten classrooms; focusing room decorations on children's work rather than on commercial or teachers' work; locating washrooms in Kindergarten classrooms; ensuring children had direct entrance to the outdoors and to playground space; and ensuring regular access to the library, music rooms, gymnasium, and so on (Manitoba Education, *Manitoba Kindergarten Assessment*).

Both MTS and the provincial Early Years Program Review Committee advised that class size should not exceed 20 students and that the department develop a policy on this issue. (In 2012, the Reduced Class Size Initiative did just that, capping Manitoba Kindergarten classes at no more than 20 students.)

Whether Kindergarten was offered on a daily half-day basis, or on alternating full days, the key advice in 1985 was to build in flexibility in order to respond to teacher observations of children's development and learning needs. Teachers were advised to avoid time-allocated "lesson plans" and to broaden the use of themes to ensure integration of material from all areas of the curriculum, as suggested by the curriculum guides of the time. The use of stencilled worksheets and workbooks was discouraged in Kindergarten.

In-class observations and surveys conducted as part of the 1985 Manitoba Kindergarten Assessment showed that too much time was being spent on whole-group instruction and not enough time on play activity sessions. The report recommended a minimum of one hour of uninterrupted free-choice play in a half-day class, and reminded teachers that Kindergarten children learn best through play and must be given adequate time to pursue self-initiated activities. School divisions were advised to provide professional development opportunities in the use of play.

Manitoba's Early Years Program Review Committee subsequently requested an update of and an expansion to *Early Childhood: A Time for Learning, A Time for Joy*. In 1986, Manitoba Education published *The Early Years: A Time for Learning, A Time for Joy: A Sourcebook for Kindergarten, Grade 1, and Grade 2* (revised by Karen Botting), followed in 1992 with *A Time for Learning, A Time for Joy: A Sourcebook for Grades 3 and 4* (Manitoba Education and Training).

In 2008, the department published *Listening and Speaking: First Steps into Literacy: A Support Document for Kindergarten Teachers and Speech-Language Pathologists*, which referenced the earlier sourcebook, asserting that

> the Kindergarten classroom in Manitoba has a longstanding tradition of being a place for *a time for learning, a time for joy*. This philosophy of learning and teaching, based on theories of early childhood, is still the basis of today's Kindergarten English language arts curriculum. (Manitoba Education, Citizenship and Youth 5)

Kindergarten Today

As you reflect on the history of Kindergarten in our province, you may smile at some of the obvious differences between the past and present, but also at some of the similarities. Today, every school division across Manitoba offers Kindergarten, and most children attend Kindergarten.

The following chart provides a little more detail about the state of Kindergarten at the time this document was developed.

Key Characteristics of Manitoba Kindergarten and Enrolment*	
Basis of attendance	Optional
Age eligibility	5 years by December 31
Hours of instruction	468 hours in 2014/2015
Delivery format	Varies by school board
Class size	Limit of 20 for Kindergarten to Grade 3 by September 2017
Enrolment	14,307 (as of September 30, 2014) (93% in public schools and 7% in **funded** independent schools)*

*Note:

The enrolment figure **excludes** Kindergarten enrolment in First Nations schools administered under educational agreement by Frontier and Park West school divisions, in non-funded independent schools, and those children who are home schooled.

Approximately 86% of Manitoba's population of five-year-olds (on-reserve and off-reserve) attend Kindergarten in public and funded independent schools.

Approximately 96% of Manitoba's population of five-year-olds (off-reserve only) attend Kindergarten in public and funded independent schools.

In 2011, Manitoba Education established the Early Childhood Education Unit (ECEU) to provide leadership and support to school divisions in the area of early learning for children up to the age of eight years. Through a collaborative approach, the unit partners with school divisions, other government departments (provincial and federal), Manitoba Early Learning and Child Care, educational stakeholder groups, and parents to promote developmentally appropriate programming and services that help prepare children for successful school entry and optimal learning in the Early Years.

In 2012, Manitoba's Minister of Education and all the provincial and territorial counterparts endorsed the *CMEC Statement on Play-Based Learning* (Council of Ministers of Education, Canada). This important document validates the playful approach to learning that was present in the earliest days of Manitoba's Kindergarten movement.

By September 2017, school divisions in Manitoba will be required to cap their Kindergarten to Grade 3 classrooms at 20 students (Manitoba Education and Advanced Learning, *Smaller Classes*). Smaller class sizes contribute significantly to improving Kindergarten children's achievement, as students do better when they receive more one-on-one time with their teachers (Finn, Suriani, and Achilles).

Today, there are diverse approaches to Kindergarten across Manitoba school divisions. Some Kindergartens operate the full day, every day, while many in rural Manitoba operate the full day, on alternate days. Some operate at 0.6 time, and others have multi-age classes, blending Kindergarten children with younger peers or with those in Grades 1, 2, and 3. However, the majority of Manitoba's Kindergartens operate half days, five days per week.

Manitoba's Kindergarten curriculum is outcome-based and organized into six subject areas: arts education, English or French language arts, mathematics, physical education/health education, science, and social studies. English as an additional language is also considered curriculum. Each subject-specific curriculum framework document identifies student learning outcomes. Four required foundation skill areas are also incorporated into the curriculum: literacy and communication, problem solving, human relations, and technology.

Curriculum outcomes are best achieved in Kindergarten environments where principles of developmentally appropriate instructional practices (such as attention to the diversity of learners), child-centredness, purposeful play, and inquiry are the foundation of all learning experiences. Kindergarten teachers facilitate optimal student learning by being reflective practitioners who use planned observation and a range of assessment strategies to provide instruction that is appropriate for each child. These big ideas are more fully explored throughout the remainder of this resource.

Nursery School and Junior Kindergarten

Across Manitoba, some school divisions offer a preschool option for four-year-olds. This option may be called junior Kindergarten, nursery school, or *prématernelle*. The rationale for offering school-based learning for four-year-olds is common across school divisions and is typically seen as an early intervention program and/or as a way to ease children's transition to Kindergarten and the school experience.

Currently, Manitoba Education and Advanced Learning does not mandate nursery school for four-year-olds and does not stipulate a specific curriculum for use with this age group. Some school divisions have developed their own curricular resources for use in classrooms for four-year-olds. The department suggests that teachers use a play-based approach congruent with what is recommended for Kindergarten-age children. Teachers of pre-Kindergarten children can use all the content within this support document as well.

Multi-age Classrooms

In some school divisions, due to philosophical choice or demographic necessity, Kindergarten children may be grouped with younger children (as in combined classes of four- and five-year-olds) or with older children in Grades 1, 2, and 3. This grouping is known as a multi-age or multilevel classroom:

> A [multi-age] classroom is one in which the developmental range is wider than that in a single-grade classroom. . . . Children's developmental diversity is celebrated, valued as part of a natural community of learners, and is harnessed in subtle ways to support learning. . . . It is not a classroom where a (for example) "second-grade" curriculum and a "first-grade curriculum" go on simultaneously. All children may work on the same topic but in different ways or at their own individual speed. (Bingham et al. 6–8)

Bingham et al. define some of the beliefs held by teachers of multi-age classrooms, and these are highly congruent with those of early childhood educators. These include shared beliefs about the essential nature of active, concrete learning for young children, the importance of community to children's learning, the value of continuity in the school setting to young children, and the role of the teacher as a co-learner along with children.

Manitoba Education and Advanced Learning believes that *in multilevel classrooms, diversity and time are not challenges to be overcome but assets and resources to promote learning.* Figure 1.2 reflects Manitoba's outcome-based curricula grounded in social constructivist underpinnings and current brain-based research. (You will read more about these ideas in Chapter 3.)

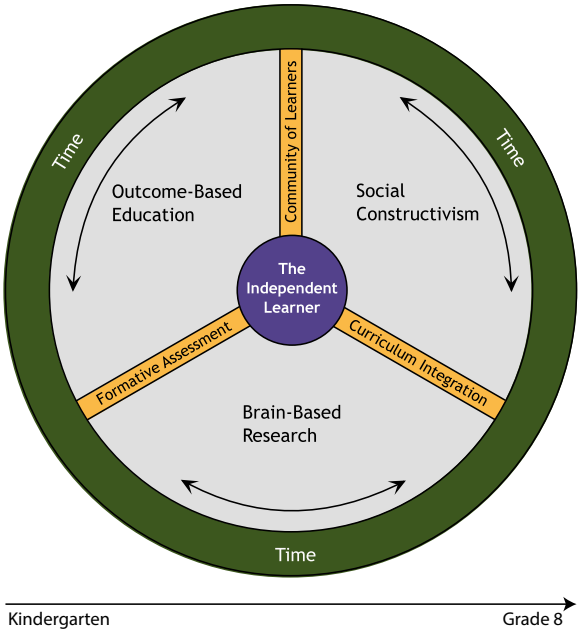


Figure 1.2:
Continuum of Learning in the Multilevel Classroom*

* Source: Manitoba Education and Youth. *Independent Together: Supporting the Multilevel Learning Community.* Winnipeg, MB: Manitoba Education and Youth, 2003. vii. Available online at <www.edu.gov.mb.ca/k12/docs/support/multilevel/index.html>.

When planning learning experiences for, and setting up, your multi-age classroom environment, remain mindful of developmentally appropriate practices for your youngest students. Note that the National Association for the Education of Young Children (NAEYC) promotes this approach not only for Kindergarten children, but also for children in Grades 1 through 3. To learn more about developmentally appropriate practices, brain research, and constructivism, as well as Jerome Bruner's ideas about the spiral curriculum, see Chapter 3. Inquiry-based planning supports are discussed in Chapter 4.

Animate and Inanimate

Children whose first language is Ojibwe or Cree may understand the concepts of "animate" and "inanimate" differently from children whose first language is English. Keep this in mind, particularly for instructional activities that address the concepts of living and non-living things. For example, in Ojibwe, "'feather' is animate and 'river' is inanimate" (Native Languages of the Americas).

Multilevel classrooms may explore topics from various grades that relate to each other to form an overall theme. In this way, the learning outcomes from several grades can be addressed at the same time. A Kindergarten to Grade 3 teacher may, for example, create a Living Things theme incorporating the four Life Science clusters (Kindergarten—Trees; Grade 1—Characteristics and Needs of Living Things; Grade 2—Growth and Changes in Animals; and Grade 3—Growth and Changes in Plants).

Wherever you are in Manitoba, and regardless of the makeup of the class you teach, Kindergarten-age children have many of the same needs. Children's first school experience is of paramount importance, and they are sure to thrive when your play-based environment and holistic approach to teaching and learning are intentionally designed to meet their developmental needs and the Kindergarten curriculum outcomes.

Summary

This chapter discussed the historical context for Manitoba's play-based Kindergartens. Information about the types of Kindergarten settings available to young learners gave you an opportunity to consider your own place in the history of Kindergarten. Chapter 2 introduces the play-based approach to Kindergarten.

Continue Your Learning

For more information and resources on the topic of multi-age classrooms, see:

Manitoba Education and Youth. *Independent Together*: *Supporting the Multilevel Learning Community.* Winnipeg, MB: Manitoba Education and Youth, 2003. Available online at <www.edu.gov.mb.ca/k12/docs/support/multilevel/index.html> (5 Feb. 2014).

Chapter 2:

A Foundation in Play

Chapter 2: A Foundation in Play

> "Play is a universal activity of children, but it takes different forms, and assumes different kinds of importance, in the diverse contexts of childhood"
> (Brooker and Woodhead, *The Right to Play* 6).

CMEC Statement on Play-Based Learning

In 2012, the Council of Ministers of Education, Canada (CMEC) released a joint statement on play-based learning as a means of achieving quality outcomes for early learners:

> Educators should intentionally plan and create challenging, dynamic, play-based learning opportunities. Intentional teaching is the opposite of teaching by rote or continuing with traditions simply because things have always been done that way. Intentional teaching involves educators being deliberate and purposeful in creating play-based learning environments—because when children are playing, children are learning. (*CMEC Statement on Play-Based Learning*)

As you review the statement on the following page, you may be surprised to read that children have the right to play. In fact, Canada ratified the United Nations *Convention on the Rights of the Child* (1989), an international treaty that sets out universally accepted rights for children. Article 31 of the *Convention* recognizes "the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts."

When you consider children's entitlement to play from this rights-based perspective, you acknowledge play as an essential experience that extends, enhances, and enriches a child's learning. You recognize that when you encourage play, you demonstrate your respect for a child's natural learning strategy. This chapter serves as the foundation that supports the play-based approach to teaching Manitoba's Kindergarten children, underscoring its connection to children's *holistic development* and to our roles as teachers who embrace a playful pedagogy in our day-to-day work with young learners.

CMEC Statement on Play-Based Learning*

At the recent World Conference on Early Childhood Care and Education, organizers, keynote speakers, scientists, experts, and political figures underscored the enormous benefits of early learning.[1] CMEC agrees with this position and believes that purposeful play-based early learning sets the stage for future learning, health, and well-being.

Learning through play is supported by science.

The benefits of play are recognized by the scientific community. There is now evidence that neural pathways in children's brains are influenced and advanced in their development through exploration, thinking skills, problem solving, and language expression that occur during play.

Research also demonstrates that play-based learning leads to greater social, emotional, and academic success. Based on such evidence, ministers of education endorse a sustainable pedagogy for the future that does not separate play from learning but brings them together to promote creativity in future generations. In fact, play is considered to be so essential to healthy development that the United Nations has recognized it as a specific right for all children.[2]

Learning through play is supported by experts.

Learning through play is supported by early years experts. Lev Vygotsky identified play as the leading source of development in terms of emotional, social, physical, language, or cognitive development. Psychologist David Elkind [states] that "play is not only our creative drive; it's a fundamental mode of learning."[3] Such experts recognize that play and academic work are not distinct categories for young children: creating, doing, and learning are inextricably linked. When children are engaged in purposeful play, they are discovering, creating, improvising, and expanding their learning. Viewing children as active participants in their own development and learning allows educators to move beyond preconceived expectations about what children should be learning, and focus on what they are learning.

[1] CMEC – Canadian Delegation Report from the World Conference on Early Childhood Care and Education, Moscow, Russian Federation, September 27–29, 2010.

[2] "Fact Sheet: A Summary of the Rights Under the Convention on the Rights of the Child," Article 31. Retrieved on February 11, 2010 from http://www.unicef.org/crc/files/Rights_overview.pdf

[3] Wood, E. (2004). "Developing a pedagogy of play." In J. Cullen (Ed.) Early childhood education: Society and culture. London, UK: Sage.

Learning through play is supported by children and parents.

Learning through play is supported by children. It is their natural response to the environment around them. When children are manipulating objects, acting out roles, or experimenting with different materials, they are engaged in learning through play. Play allows them to actively construct, challenge, and expand their own understandings through making connections to prior experiences, thereby opening the door to new learning. Intentional play-based learning enables children to investigate, ask questions, solve problems, and engage in critical thinking. Play is responsive to each child's unique learning style and capitalizes on his or her innate curiosity and creativity. Play-based learning supports growth in the language and culture of children and their families.

When children are playing, children are learning.

Given the evidence, CMEC believes in the intrinsic value and importance of play and its relationship to learning. Educators should intentionally plan and create challenging, dynamic, play-based learning opportunities. Intentional teaching is the opposite of teaching by rote or continuing with traditions simply because things have always been done that way. Intentional teaching involves educators being deliberate and purposeful in creating play-based learning environments — because when children are playing, children are learning.

FROM THE EXPERTS

Play lies at the core of innovation and creativity. It provides opportunities for learning in a context in which children are at their most receptive. Play and academic work are not distinct categories for young children, and learning and doing are also inextricably linked for them.
(Ontario Full Day Early Learning Kindergarten Program, 2010)

In play, children represent and transform the world around them, providing other children and adults with a window into their thoughts and perceptions, and often helping adults to see the world in new ways.
(BC Early Learning Framework, 2008)

Play expands intelligence, stimulates the imagination, encourages creative problem solving, and helps develop confidence, self-esteem, and a positive attitude toward learning.
(Dr. Fraser Mustard)

* Source: Council of Ministers of Education, Canada. *CMEC Statement on Play-Based Learning*. 19 July 2012. <www.cmec.ca/Publications/Lists/Publications/Attachments/282/play-based-learning_statement_EN.pdf>. Reproduced with permission.

Kinds of Play

This chapter discusses the various types of play, including exploratory, constructive, symbolic, and socio-dramatic play and games with rules. Children's exploratory, constructive, and symbolic play experiences are of particular importance to learning (British Columbia Ministry of Education, *The Primary Program* 33–34).

Just as there are different kinds of play, there is much variation across developmental levels of children. Children integrate all areas of their learning across all areas of the curriculum, and all developmental domains are nurtured and stimulated. This is why early childhood teachers have always recognized the value of play for children's holistic development. Many researchers (Zigler, Singer, and Bishop-Josef; Singer, Golinkoff, and Hirsh-Pasek) concur, and attest to the central role of play as a *medium* for promoting developmental health in a whole, active child at school entry and throughout the Early Years in school.

Since children enter Kindergarten with various kinds of prior play experiences, expect to see some children who are highly skilled play partners, while others will require opportunities to expand their play repertoire further. In addition, some Kindergarten children born into refugee families may have had early childhood play experiences very different from those we may take for granted here in Canada. Play may have a restorative impact on development and relationships among children who have been affected by conflict and war (Hyder).

Cross-Cultural Understandings of Play

Children's play may be influenced by the dynamics of the family's culture. How different cultures look at and interpret play is based on cultural values and points of view, including the very definition of play. Teachers are encouraged to further develop their cross-cultural understandings of play (Hyun).

Source of photograph: Displacement in South Sudan: A Camp within a Camp. A displaced boy plays with a damaged bicycle crankset and crank arm found in the compound. © UNHCR/K. McKinsey, January 2014. <https://m.flickr.com/#/photos/unhcr/11854487296/>. Reproduced with permission.

Which types of play do you see in your Kindergarten classroom? As you observe children playing, you will probably see at least some differences in their play as the year progresses. You will need to adjust your approach accordingly. Teachers who embrace a playful pedagogical approach to learning and teaching foster children's development across all domains.

Exploratory Play

"There is evidence that when children are given opportunities to develop the multiple sensory pathways in their brains by solving problems during play (as compared to completing a single and isolated task), they are laying the foundation for healthy brain development"(McCain and Mustard 6).

When children engage in exploratory play, they experiment with, and explore the attributes of, new ideas or new materials, combining them in new ways to solve problems. This type of play provides children with many social, emotional, and cognitive learning opportunities. As children play, they learn to interact with, control, and master their world.

Play allows children many opportunities to participate in problem-solving activities. As they play with open-ended materials (loose parts), such as sand, blocks, water, and clay, they investigate and discover, explore cause and effect, and learn to create their own theories through hands-on experiences. These play activities are directly related to the development of logical and mathematical thinking. Significantly, through play children also learn there can be more than one way to solve a problem, a skill increasingly important in our world today.

Constructive Play

Constructive play is thoughtful, goal-oriented play. Children engage in constructive play when they use open-ended materials to represent their ideas. When children in the classroom play with blocks, sand, and water, create models, paint, draw, or create three-dimensional sculptures out of clay or playdough, you see examples of constructive play. You support children's constructive play through meaningful interactions, by posing and answering questions, by helping children document what they are learning, and by creating safe and accessible play spaces that are rich with open-ended materials.

Many Kindergarten children enjoy ordering and organizing interesting classroom collections or their own personal collections, such as bottle caps, rocks, hockey cards, buttons, and more. As they construct patterns and assign materials to categories, such as smooth/bumpy or big/small, they make important discoveries about seriation, classification, and so on. You support children's language development as you and the children discuss mathematical concepts, such as height and weight, and use words that define spatial awareness, such as beside or behind. You promote literacy, numeracy, and problem solving as you support and encourage children's constructive play.

Symbolic Play

Symbolic play refers to children's growing ability to use actions, objects, or ideas to represent other actions, objects, or ideas. For example, a collection of buttons or corks can be the babies the children look after; a pot full of alphabet blocks can be the soup they are cooking; a stick can become a magic wand; and a shawl or doll blanket wrapped around one's shoulders can confer superhero powers. A five-year-old who plays the "baby" crawls on the floor, cries for her mommy, and says "goo-goo." Children who have had many such play experiences can even imagine an object without the need for its physical, concrete presence. They can imagine and pantomime talking on the telephone while holding a hand to the ear, rocking a baby in their empty arms, or knocking on a non-existent door asking to be let in.

Symbolic play (where one thing "stands for" or symbolizes another) demonstrates a child's emerging ability for representational thinking. As educators, we understand that symbolic play shares important characteristics with emerging literacy because they both depend on the young child's growing ability to use body language, verbal communication, and mental images to represent. Lev Vygotsky, a Russian psychologist (discussed in more detail in Chapter 3), described an important relationship between symbolic play (first-order symbolism) and reading and writing (second-order symbolism). Both play and learning to read and write are based on young children being able to use many represented meanings and develop similar representational mental processes. Children who successfully use symbols in their play are more ready to accept the idea that the squiggles we name *letters* and *words* stand for items in their real world. You can provide opportunities for children to engage in symbolic play, and coach children who are less experienced in this type of play, understanding you are offering those children important scaffolds to their emerging literacy and numeracy abilities. In fact, "fantasy play is the glue that binds together all other pursuits, including the early teaching of reading and writing skills" (Paly 8).

Socio-Dramatic Play

Some Kindergarten-age children like to pretend to play a story or scenario with defined roles ("You are the baby and I am the Mommy") and a plot ("We will go to the doctor's office to get you your needle"). These mature players will invent props to fit the roles they have defined, use language to mediate the roles and the plot through complex narratives, and become completely immersed in their make-believe world if we allow large chunks of time required for the full unfolding of the story. Socio-dramatic play helps children grow socially, as they think about other people's points of view, not just their own—a concept often referred to as *theory of mind*.

When children share their fantasies and their good ideas, they can think beyond their own family and the way things are done at their own home. They can think about the bigger world and all the people in the community. What is the job of the grocer at the neighbourhood market? What is the job of the Kindergarten teacher? What is the job of the firefighter who saves people's lives, but who also checks the baby's car seat to make sure it is installed correctly? Pretending takes lots of practice by the preschooler and is one type of play that shows great variation, depending on prior experiences.

Socio-dramatic play that entails verbal communication and interaction in small and large groups where children have to put themselves in another's place fosters empathy and consideration for the feelings of others. Role-playing helps a child to define social roles, practise turn taking, and be accepted by others—all important aspects of successful group interaction needed later in life. Socio-dramatic play where children are pretending or acting out a story with friends, family members, or their teachers helps children to understand themselves, their feelings, and the feelings of the people around them, allowing children to develop appropriate social behaviour (Burke 19–20).

We see rich socio-dramatic play emerging among experienced players who take on assigned roles, such as a teacher or mother, and stay in character during this play. These players may also take on less concrete roles, such as magical characters, superheroes, or aliens. Kindergarten children may use language play in symbolic ways as they tell jokes, pose riddles, and enjoy rhyming. They engage in literacy and numeracy play as they create shopping lists or take orders in the dramatic play centre; they may pretend to read the books that are familiar to them, or use play money to pay for their purchases at the store you have set up.

Games with Rules

Children enjoy simple games with rules.

During the Kindergarten year, most children become increasingly comfortable playing games with rules. They may enjoy playing board games (e.g., Candyland, Lotto), simple card games (e.g., Go Fish), group activities (e.g., Simon Says, Red Light, Green Light), or hopscotch in the gymnasium or outside. Children may follow established rules, they may create their own rules during their free play (e.g., when they agree that a particular tree becomes "home free"), or they may demonstrate a shared understanding (e.g., that the child who plays the patient does not grab the stethoscope from the child who is the doctor). Games with rules help children learn to follow directions, to monitor their own impulses, and to develop *self-regulation*. In fact, "Kindergartners learn self-regulation best through activities in which children—and not adults—set, negotiate, and follow the rules" (Bodrova and Leong 2). You will read more about self-regulation later in this chapter.

Games with rules also help children to develop self-esteem and independence. They foster children's interaction, cooperation, and communication skills. In addition, they can support literacy and numeracy objectives, nurture children's physical capabilities, and encourage discovery and exploration in the classroom.

Development across the Domains through Play

Consider the humorous cartoon "A Play Creation" depicting children learning through play across all their developmental domains (see Figure 2.1). Are you able to articulate, with the same clarity as these young students, how the children in your Kindergarten learn? Do you value play as their teacher does? How do you respond to people who may not value play in quite the same way, as is the case with the visitors at the door?

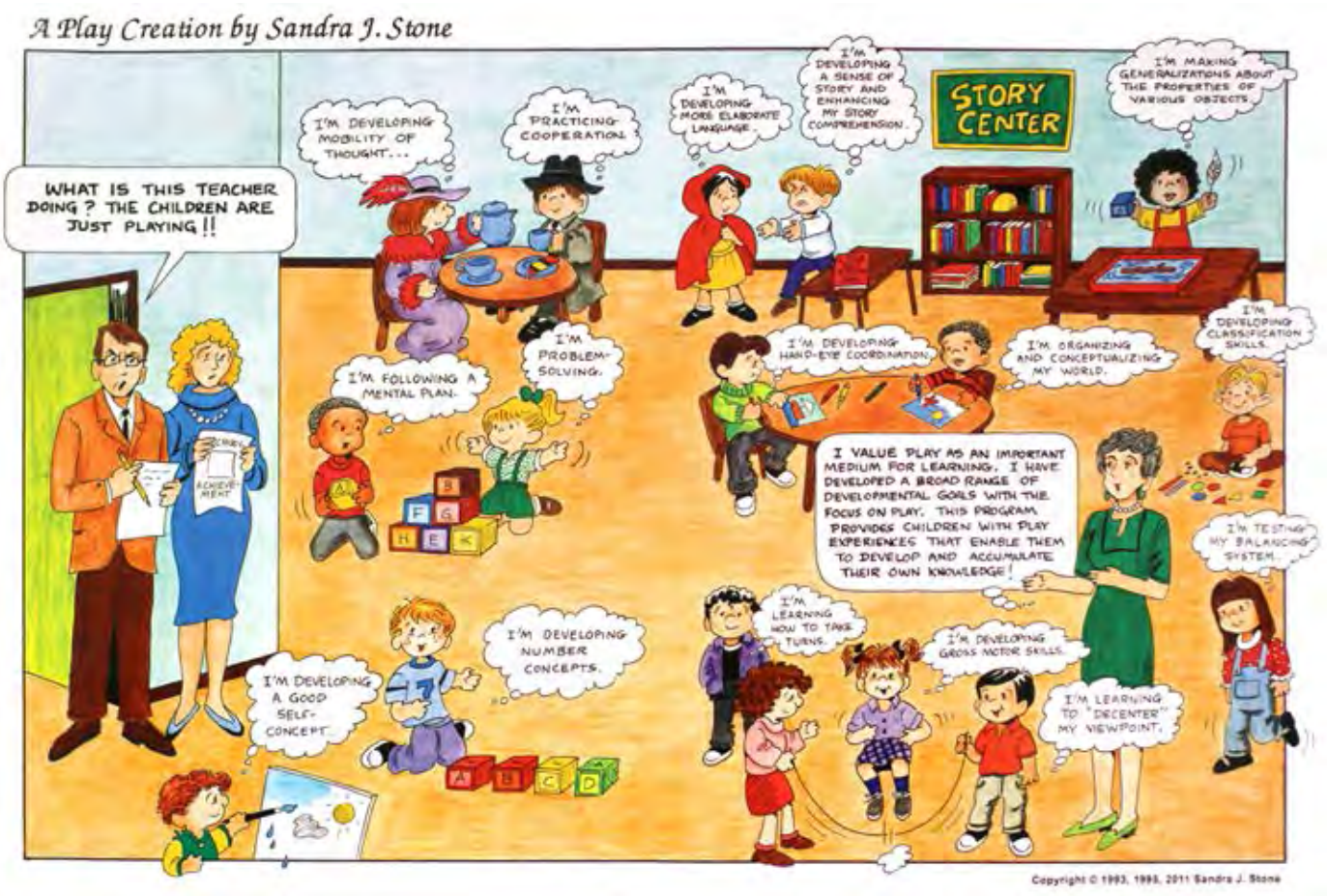


Figure 2.1: A Play Creation*

* Source: Copyright © 1993, 1995, 2011 Sandra J. Stone. Reproduced with permission.

What are some of the ways you see children's development being fostered through play each day in your own Kindergarten classroom? Using the language of child development can help you to specify and describe the important learning you see in the children you teach.

The domains of children's development are closely related and intertwined, and play is influenced by and has an impact on all areas of development. Remember, too, that development has a large range. Some children may demonstrate strengths in one or two domains at an early age, while others may not yet have mastered some of these indicators, and still may be considered developmentally "typical."

The five developmental domains demonstrated through play (see Figure 2.2) are:

- physical health and well-being
- emotional maturity
- social competence
- language and thinking skills
- communication skills and general knowledge

A discussion of these developmental domains follows.

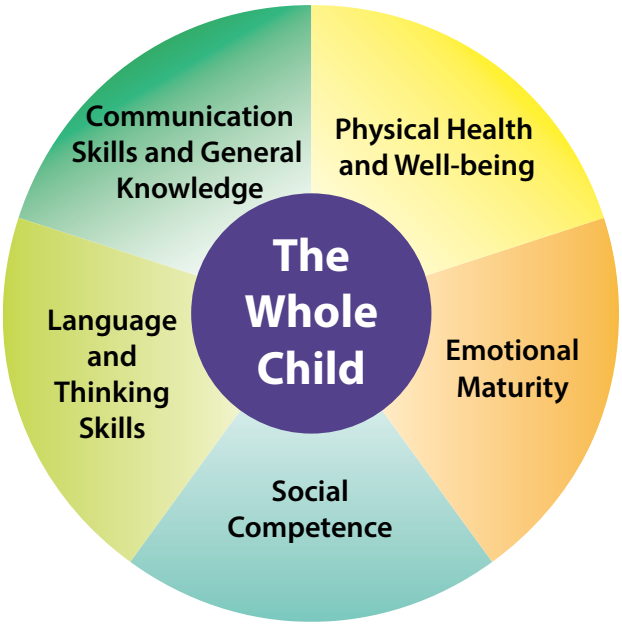


Figure 2.2: The Five Developmental Domains

Physical Health and Well-being

Five-year-old children are moving out of the preschool time of their lives and, as a result, the rate of their physical growth may slow down a little. At the same time, many children are becoming stronger, faster, and more competent at physical challenges, such as catching a ball or holding a pencil.

Five-year-olds may demonstrate many *gross motor skills* such as these:

- running, jumping, climbing, kicking, and throwing
- bouncing and catching a medium-sized ball
- skipping
- hopping on one foot
- walking backwards for two metres, walking in a straight line, and walking up and down stairs
- standing on one foot for five or 10 seconds
- learning more complex body coordination skills, such as swimming, skating, and riding bicycles or other riding toys with pedals

Children's *fine motor skills* include the following:

- drawing and printing, holding the crayon or pencil between thumb and index finger
- cutting with scissors
- tracing basic shapes or drawing a line with control
- doing up buttons and zippers
- using a fork properly
- putting together a 10- to 12-piece puzzle

When children play, they experience increased feelings of well-being, leading to better mental health outcomes: "The pleasure and satisfaction associated with play and the freedom from pressure to perform in play supports the development of a strong sense of wellbeing" (Gordon, O'Toole, and Whitman, as cited in Kennedy and Barblett 6).

Physically active play helps children to develop gross and fine motor skills and experience other health benefits, such as improved metabolism and energy expenditure. Recently, however, many researchers and educators have become increasingly alarmed about the poor physical health of Canadian children. The organization Active Healthy Kids Canada analyzes current data and literature related to physical activity and creates a report card. In 2013, Canadian children were given a D–, as 93 percent of 5- to 11-year-olds did not meet Canada's physical activity guidelines of 60 minutes of physical activity a day (*2013 Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth* 6).

Fortunately, according to David Elkind,

> A child in a developmentally appropriate early childhood program will get all the exercise and all the preparation for sports that she needs in the school's outdoor or indoor play area. Pumping on a swing, going up and down a slide, riding a trike, playing in the sandbox, or scrambling up a climbing structure afford age-appropriate practice for young muscles. In addition, a play area allows children to choose which activity they want to participate in and when they want to stop. They are also able to take age-appropriate risks and engage or not engage socially with other children. . . . Play is the dominant mode of learning. (82)

Essentially, movement experiences in Kindergarten should expose children to a wide variety of appropriate physical activities so they acquire efficiency in basic movement or gross motor skills. Prior to beginning school, children develop and start to refine gross motor skills as they gain mastery of their bodies and environments. They acquire gross motor skills in a sequence of phases that started with the reflex level of functioning. These skills develop to the point where specialized movement skills allow school-age children to learn and participate in a variety of sports and games. Through the acquisition of gross motor skills and fitness, children are able to participate successfully in a variety of progressive and appropriate physical activities (as discussed in Chapter 8).

Emotional Maturity

Shanker advises us to "focus on the emotional qualities that create mentally healthy children: their motivation, curiosity, empathy, emotional range, self-esteem, internal discipline, creativity, and moral integrity" (4). How do you see these qualities in your Kindergarten classroom?

By the time they enter Kindergarten, most emotionally healthy children

- are excited to start school
- are usually comfortable being left at school by their parents or caregivers
- rarely or never use aggression to solve a conflict, do not have temper tantrums, and are not mean to others
- are able to concentrate, settle to chosen activities, and wait their turn
- control impulses and think before doing something (most of the time)
- can take personal responsibility for many self-help tasks, such as dressing in outerwear, putting away toys or belongings, and taking care of their own toilet needs
- help someone who is hurt, sick, or upset
- offer to help spontaneously
- invite bystanders to join in

A child who has mastered the steps to tying shoelaces spontaneously helps a child in need.

While independence is a trait that many Kindergarten teachers value, some parents may value interdependence far more dearly and may interpret the push for independence as demanding that their child grow up too quickly. In other cases, parents or early childhood educators may have worked with children entering Kindergarten to ensure that they can zip or button up their own sweater or jacket, tie a knot, and fasten buttons they can see. Many Kindergarten children can tell their left hand from their right, separate confidently from their families at the start of school, and even cross a street safely. Other children may be quite overwhelmed by the busy Kindergarten classroom and the increased expectations for behaviour and school work and show fearfulness, anxiety, or aggressive behaviours that signal their internal distress.

Self-regulation is the child's ability to direct his or her own feelings, thoughts, activity levels, actions, and attention. It is different from self-control and relates more to the child's ability to handle various stressors, such as noise, light, frightening experiences, or frustration. Self-regulation is a key indicator of children's success in school, but this trait takes much practice to develop.

When you introduce games such as Simon Says or Frozen Tag, you support the development of children's executive function—the place where self-regulation resides. Low-stress games such as these require children to concentrate and to pay attention—they must remember rules (Do I follow Simon, or the leader?)—and they require children to mediate their own behaviours. These important personal qualities also predict academic success.

As children play, they learn to shift attention, remember, and inhibit their impulses; as a result, they are able to plan, solve problems, and work toward a goal. These skills relate to later achievement in social competence and in academic content, including numeracy and literacy (Bodrova and Leong 1). Furthermore,

> when play emerges from children's interests it will engage their focus. It will help them to consider the perspectives of others and figure out what they are thinking. Play encourages communication about wants and fosters connections between objects, people . . . [and] ideas. It is a challenge that children can take on which requires self-direction in order to maintain. (Shanker 4)

Play supports the development of persistence, emotional competence, and empathy as young children become more aware of their own emotions, motivations, and desires, as well as those of their friends, teachers, and families. Open-ended play enables children to "work through and make sense of their scary, confusing, and frustrating experiences" (Miller and Almon 50). As children play, they discover areas of personal competence that bolster their feeling of self-worth and being accepted. They experience the personal strength and sense of worth that come from growth in knowledge and the ability to reason and solve problems. As children play, they develop confidence in making personal choices and taking appropriate risks. They learn that everyone makes mistakes and that this is an inevitable and acceptable part of learning and growing. Through play, children also develop increasing self-control and a realistic acceptance of personal limitations and the shortcomings of others, and they become increasingly resourceful about trying things in different ways.

Social Competence

Social competence describes various aspects of a child's social development. Most five-year-old children

- demonstrate the ability to get along with and play with other children, share, take turns, and play fairly, and are usually cooperative and self-confident
- have learned to verbalize their feelings, needs, and wants (especially those with prior preschool experiences)
- may compromise to solve interpersonal or other problems they experience, even if frustrated or angry
- ask for help when required
- may use polite phrases, such as "please," "thank you," and "excuse me"
- develop special friendships with some peers in the classroom
- show respect for the rights, property, and feelings of others

- accept responsibility for their own actions
- show self-control
- typically go along with classroom rules, limits, and routines, especially when they have a chance to help develop them and when these are handled consistently and in a child-centred manner
- learn to adjust easily to changes, such as the presence of a substitute teacher, or learn to manage themselves during a special assembly in the gymnasium with other older students (with practice)
- demonstrate their enthusiastic approach to new activities
- are curious about and eager to explore their surrounding world

Social Competence Dependent on Linguistic and Cultural Understandings

Social competence is highly dependent on cultural and linguistic understandings. Many English as an additional language (EAL) children have limited experience interacting with English-speaking children. This may mean that they are unfamiliar with the expected social-cultural norms and language required for social interactions. Teachers support EAL Kindergarten learners by explicitly modelling and then guiding EAL students to verbalize their feelings, needs, and wants, as well as by coaching them with the language required to engage in interpersonal communication (discourse patterns, and so on).

As children play, they increase their ability to solve social problems, to formulate and modify courses of action, to cooperate by respecting agreed-upon ways of doing some things, and to lead and follow. As they make play choices, children develop some of the skills needed in group and personal decision making, and learn to accept realistically the consequences of specific decisions.

Children with effective social and emotional skills do better in getting along with others, understanding directions, and focusing on a task; these key skills enhance school success and lifelong learning. Brain research confirms that the ability to regulate emotions in early childhood is ultimately associated with the development of problem-solving skills (Posner and Rothbart).

Within the context of playing simple games with rules and in social play, children experience successful interactions with their peers and gain the practice they require in their social-emotional development. These pathways to social-emotional development lead to key outcomes such as the following:

- more empathy
- better control of impulsive actions
- better ability to take on the perspectives of others
- better prediction of others' preferences and desires
- better emotional and social adjustment
- more innovation

- more imaginativeness
- longer attention span
- greater attention ability
- more peer play

Language and Thinking Skills

During the Kindergarten year, most children

- enjoy an increasing ability to "use their minds" and are laying a foundation for the more formal learning of later developmental stages
- can be very talkative, ask many questions, and create their own theories about those questions
- appreciate new words and use longer sentences to articulate their thoughts
- understand and follow directions even when several steps are involved
- remember routines and experiences even when they took place in the past
- show interest in books and in learning to read, and listen carefully when books are read aloud
- know how to handle a book, can identify some letters and attach sounds to some letters, show awareness of rhyming words, and know the direction flow of writing (from left to right)
- are able to write their own name and are interested in writing on their own initiative and not only under their teacher's direction
- may count to 20 and recognize common shapes and many numbers
- can compare numbers, sort and classify, use one-to-one correspondence, and understand simple time concepts

Numeracy, literacy, and oral language itself develop through social interaction and through play at the sand and water table and at other traditional Kindergarten learning centres (about which you will read more in Chapters 5 and 6).

Research by various child development experts has concluded that through play, children show

- better verbalization
- richer vocabulary
- higher language comprehension
- higher language level
- better problem-solving strategies
- more curiosity
- higher intellectual competence

As children play, they are developing memory for telling their own stories and remembering stories they have heard. They use more complex language and vocabulary, demonstrate imaginative and flexible thinking, and make many scientific, mathematical, and social discoveries. Play offers "the freedom to explore, discover and be inventive [and] prepares children for intellectual enquiry" (Brooker and Woodhead, *The Right to Play* 28).

As you plan for purposeful play experiences, you can include activities that help children to

- develop expressive and receptive language skills
- become more sensitive to sensory stimuli and become responsive to the environment, but not overwhelmed by it
- become increasingly capable of making sensory discriminations
- develop self-direction and independence
- symbolize ideas
- develop more mature thinking skills, to include thoughtful questioning and independent problem solving
- classify and order the phenomena of the world
- understand the spatial relationships of weight, height, size, and shape
- establish handedness
- develop the habit of left-to-right eye movements
- store sensory impressions in the form of images
- improve in auditory and visual discrimination
- grow in the ability to listen, to follow directions, to recall main ideas, and to react to stories

Communication Skills and General Knowledge

Children with strength in the domain of communication skills and general knowledge are able to

- communicate easily and effectively with adults and their peers
- verbally communicate their own needs and their ideas and plans
- share their personal experiences in ways that others can understand
- participate in storytelling or imaginative play, and recall and retell a story through play or in direct response to a more formal question
- listen when someone talks to them, and understand and respond to requests
- articulate clearly and proficiently in their first language
- be curious about and interested in their surrounding world

- answer questions or offer information spontaneously, demonstrating their general knowledge about the world (e.g., leaves fall in the autumn; oranges, bananas, and apples are types of fruit; there is a desert in Manitoba)

Implicit Versus Explicit Learning*

Do [EAL] learners acquire principles of language without being conscious of them, or can they also learn from explicit instruction? Explicit language teaching was common in the past, but in recent years due to the widespread influence of Krashen and others who argued that explicit knowledge could never become automatic, many teachers believe that children can learn EAL implicitly through general classroom experiences and with little focused instruction. However, an increasing body of evidence suggests that there is a role for both types of learning and that some explicit instruction facilitates the process. . . .

Many teachers . . . assume that students will simply "pick up" English without any language instruction as they interact in cooperative learning experiences in a language rich environment.

* Source: Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming*. Winnipeg, MB: Manitoba Education, 2011. Section 2, 2.3 to 2.4, 2.12.

Many Kindergarten learning experiences help expand children's communication skills and their general knowledge. Children build strength in this domain when they are read to, engage in pretend play, participate in field trips, learn from special visitors to the classroom, are a part of library time or a general assembly, cook together, talk about feelings, and share many rich conversations about their interests, activities in the school, and current events. Try to make connections between experiences, ideas, and books (e.g., "That dog on the sidewalk looks just like the dog in *Harry the Dirty Dog*, the book by Gene Zion we read earlier today.").

Of course, play offers the chance for sustained and shared thinking between adults and children. As children play with you, the learning materials in your classroom, and their peers, they are practising their communication skills and expanding their general knowledge about the outside world. Children share information with one another through play, and you can introduce ideas into the play that helps to support and extend it.

In Kindergarten, "play provides a natural integration of learning domains, integrating social, emotional, and physical learning with cognitive and academic learning. This integration is difficult to achieve and maintain in teacher-directed instruction" (Hewes 5). Developmentally appropriate learning experiences can be found in the subject area curricula. Chapters 7, 8, and 9 of this document detail how to approach the Kindergarten curriculum through play.

Developmental Health at School Entry

As you learn more about the individual children in your classroom, you recognize their strengths, interests, and talents, as well as their emerging capabilities and/or areas of vulnerability. You use a *holistic* approach to children's development and teaching, by simultaneously addressing the five broad developmental domains identified in Figure 2.2. The five developmental domains are the same ones you

consider during the biannual Early Development Instrument (EDI) assessment you conduct on the children in your classroom. You should, of course, consider them year round. For more information, see Appendix A: Early Development Instrument.

Children are born ready to learn. The EDI is a community-based tool to support families and communities to prepare children for success in school. Schools and early childhood development (ECD) partners collaborate to meet the developmental needs of children from birth to six years of age. School readiness can be conceptualized as a child's developmental health at school entry. An important question is whether the child has the ability (often formed through prior experiences) to meet the task demands at school and the potential to benefit from the educational experiences provided by the school (Offord Centre for Child Studies).

Considering Cultural and Linguistic Contexts

When interpreting the results of developmental assessments such as the EDI, it is important to consider the child's cultural and linguistic contexts:

> Development and learning are universal processes but they take place in specific contexts . . . . Variations in children's development and learning are shared by cultural values, strongly linked to economic and structural inequities, as these impact on the capacities of parents to promote their children's development. (Brooker and Woodhead, *Culture and Learning* 1)

When hearing the phrase *ready to learn at school*, people often think about a child's ability to learn to read, write, and do arithmetic. While these things are important, a child's *readiness to learn*, as you know, also includes non-academic outcomes, including

- emotional health and maturity
- ability to get along with others and learn new skills
- language development and thinking skills
- ability to communicate with others and to understand the surrounding world
- physical health and well-being

Remember that

> the most relevant child attributes for success in kindergarten are social awareness and social skills such as friendship-making, self-regulation, knowing how to resolve conflicts with other children constructively, the ability to communicate needs, wants and thoughts verbally, and an enthusiastic approach to new activities. (Doherty 2)

Reflection: Are Our Schools Ready for the Children?

As champions for young children within our schools, we can shift the question "Are children ready for school?" to "Are our schools ready for the children?" From a philosophical perspective, some teachers talk about focusing on children "being" rather than "becoming" by thinking about children and who they are today, which can relieve some of the pressures teachers feel to make sure children become ready for Grades 1, 2, and so on. What do you think?

Using a Play-Based Approach

Manitoba Education and Advanced Learning recommends 45 minutes to one hour of child-initiated play per day during the Kindergarten year.

Given the importance of play in children's development, what is the role of the teacher in a play-based classroom? How do teachers actualize a play-based *pedagogy*? Current research confirms that young children need a balance of child-initiated play in the presence of engaged teachers and more focused experiential learning guided by teachers. Along with many play experts, Manitoba Education and Advanced Learning recommends 45 minutes to one hour of child-initiated play per day during the Kindergarten year.

Consider the Kindergarten continuum represented in Figure 2.3. Where, along the continuum, do you think your current approach would fall? Generally, teachers who provide developmentally appropriate experiences find they move back and forth along the central part of this continuum, depending on the needs of the children and the focus of the learning at the time. The practices recommended within this document are found along this central part of the continuum: a classroom rich in child-initiated play and a playful classroom with focused learning. Note that *regardless of whether children are initiating their own learning or teachers are guiding it, children are playing and adults are fully engaged*.

"Learning is child-directed and not adult controlled. Guided play is not direct instruction dressed in playful clothes" (Hirsh-Pasek and Golinkoff 7).

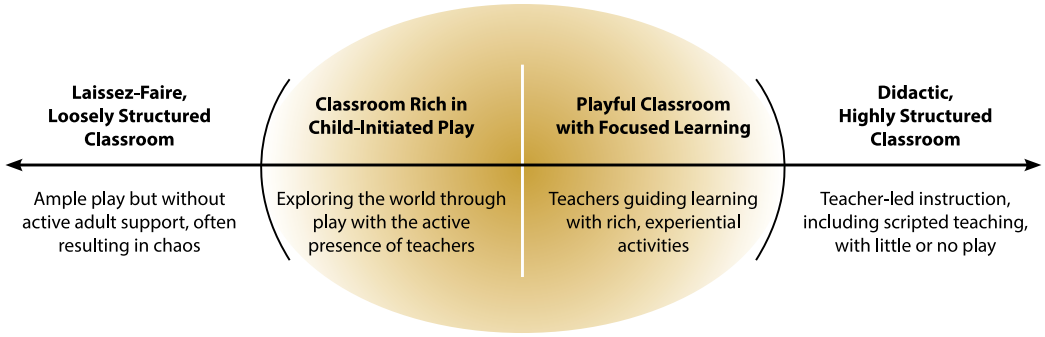


Figure 2.3: The Kindergarten Continuum*

* Source: Miller, Edward, and Joan Almon. *Crisis in the Kindergarten: Why Children Need to Play in School.* College Park, MD: Alliance for Childhood, 2009. 12. Available online at <http://drupal6.allianceforchildhood.org/sites/allianceforchildhood.org/files/file/kindergarten_report.pdf>. Reproduced with permission.

Consider these two types of playful learning (child-initiated play and a playful classroom with focused learning) as the way through which you differentiate your instructional approach. Sometimes, the playful learning will be child-initiated, and children will choose their own level of challenge from the range of learning experiences available to them throughout the Kindergarten classroom. At other times, you will initiate the learning experience, and children will be stretched in a low-stress opportunity. In either case, you know that children's development is optimized through play. Through your playful pedagogy, you can address the development of children's "language skills, early literacy, conceptual learning, problem solving, perspective taking, creativity, and representational skills" (British Columbia Ministry of Education, *Full Day Kindergarten Program Guide* 14).

Figure 2.4 presents another image of the various kinds of activities engaged in by children and teachers in classrooms. In truly play-based Kindergartens, children participate in a balance of child-initiated and adult-guided activities within an environment where play is encouraged and nurtured. Seek the balance or the middle ground between these approaches to support children's learning in an intentional way.

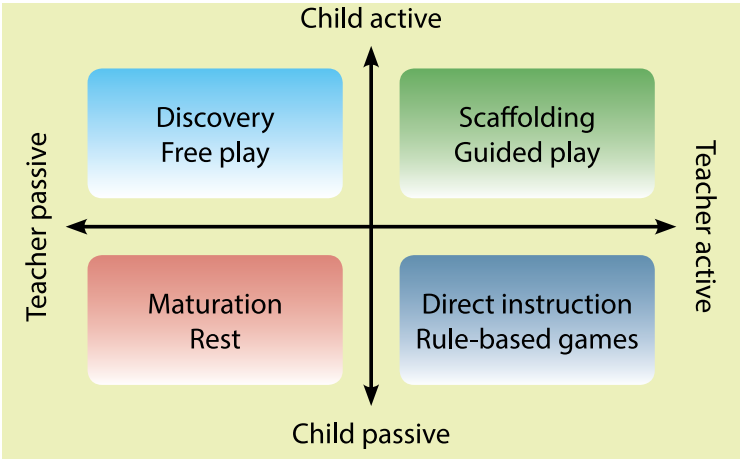


Figure 2.4: Teacher Activity and Child Activity*

* Source: Snow, Kyle. 2011. "Research News You Can Use: Debunking the Play vs. Learning Dichotomy." *National Association for the Education of Young Children (NAEYC).* Washington, DC: Author: <www.naeyc.org/content/research-news-you-can-use-play-vs-learning>. Copyright © 2011. NAEYC®. Reprinted with permission.

Guided play is quite different from free play because teachers intentionally plan around curricular goals and offer learning experiences that respond to children's desire to explore and play with interesting and novel materials that are learning-orientated. Adults scaffold on children's interests and accomplishments by enriching their learning environments in developmentally appropriate ways; for example, the presence of books and writing materials in many areas of the Kindergarten classroom gives children access to print in ways that are meaningful to them in the moment.

Developmentally appropriate practice for the EAL children in your class includes determining the individual student's stage of English language development and intentionally incorporating the EAL curricular goals in an inquiry and play-based learning environment.

Individualized Support

Individualized support for EAL children might include frequent teacher (or peer) modelling of specific discourse patterns when playing, with opportunities for rehearsal: "It's my turn." "I want a _____."

When you comment on children's play and discoveries, and when you ask open-ended questions (e.g., How else could you make that bridge balance?), you encourage children to think more deeply, help them to see connections, and show that you value their learning. Remember that children are the active drivers of their learning.

A teacher acts as an encouraging audience, helping children to connect their puppet play to a familiar story.

What is the teacher doing while children play? What exactly does active support look like? During children's play, you can provide active support by

- playing
- listening
- documenting
- supporting
- asking thoughtful and open-ended questions
- coaching
- prompting
- guiding
- observing
- assessing
- asking direct questions
- providing direct instruction (as appropriate)
- connecting
- extending
- facilitating
- provoking
- commenting
- narrating

Teachers provide these varied supports to children as they engage in child-initiated play and experiential learning. They seek to achieve a genuine balance between child-initiated and adult-guided play. Help children to plan their play, monitor the progress of their play, and coach those who are less mature in their play.

The process of providing active support while children play may require teachers to reflect critically on how things currently work in their classrooms, to promote practices that are developmentally appropriate, and to eliminate those that are not. Teaching techniques include asking open-ended questions, modelling, demonstrating or suggesting ways to use the learning materials that the child may not have thought about, scaffolding, and direct instruction, as appropriate. While there is certainly an important place for adult-guided learning in Kindergarten, try to avoid didactic lessons from the "sage on the stage." Instead, adjust your approach based upon your observations of children and your knowledge about their learning styles, while responding to the teachable moments that present themselves. For example, at a time when a child seems ready to print his or her name, a brief mini-lesson on letter direction may be just what that particular child needs, but not the entire group.

As you get to know the children in your classroom each year, you may adapt your role to support their playful learning. You intentionally create social environments that support children's play by acting as a socially competent play partner, modelling play conversations for children ("Hey kids, can I help?"), and providing many open-ended play materials in sufficient quantities to stimulate children's conversations and ease their sharing. You are actively present during choice times, and offer problem solving as needed. You assist children as they initiate play, individualizing your support to meet children's diverse needs (Kennedy 21). You approach the beginner as a *model*, the child who is developing play skills as a *coach*, the more experienced player as an *advisor*, and the most experienced children as a *mentor*.

The following table suggests some of the supportive actions Kindergarten teachers undertake as they play with children. In addition to providing whole-group instruction, teachers model, coach, advise, and mentor young children during their Kindergarten year. Watch for the actions taken by teachers in the vignettes you will read throughout the rest of this document.

Supporting Play*

Stage	Role	Actions
Beginning — with direct support	The Model	showing, instructing, explaining, directing, making explicit, demonstrating, giving examples
Developing — with guided support	The Coach	structuring, sequencing, focussing, cueing, guiding, organizing, supporting
Applying — with minimal support	The Advisor	suggesting, reminding, promoting, monitoring, asking for elaboration
Extending	The Mentor	extending, stretching, wondering aloud, exploring, "what if-ing"

* Source: Kindergarten Learning Project. *Full Day Kindergarten Program Guide.* Copyright Province of British Columbia. All rights reserved. Adapted with permission of the Province of British Columbia.

Reflection: How You Support Children's Play

Think about your own teaching approach and how you support children's play-based learning, considering your interactions with individual children in your Kindergarten classroom:

- In what ways do you fill the various roles of model, coach, advisor, and mentor in your work with the children?
- What are some specific actions you take in these roles?

Summary

As discussed in this chapter, your role as a teacher during children's play is to

- help children become more engaged in playful learning
- develop more sophisticated play and problem-solving strategies
- create a rich learning environment where play flourishes
- expose children to new experiences, both in the classroom and through field trips
- be a playful role model
- support children's progression into games with rules

In subsequent chapters, you will examine how play can infuse your approach to the Kindergarten curriculum and how your classroom and teaching strategies can create "places where children wonder, discover, imagine, construct and learn by trial and error so that from their experiences they can develop their own framework of knowledge and a firm sense of self" (Bos and Chapman xv).

Chapter 3 addresses the view of the child and focuses on developmentally appropriate practices.

Continue Your Learning

For more resources about play, see:

Council of Ministers of Education, Canada, Early Childhood Learning and Development Working Group. *CMEC Early Learning and Development Framework*. 17 June 2014. <www.cmec.ca/Publications/Lists/Publications/Attachments/327/2014-07-Early-Learning-Framework-EN.pdf> (3 Nov. 2014).

Elkind, David. *The Power of Play: Learning What Comes Naturally*. Berkeley, CA: Da Capo Press, 2007.

Epstein, Ann S. *The Intentional Teacher: Choosing the Best Strategies for Young Children's Learning*. Rev. ed. Washington, DC: National Association for the Education of Young Children, 2014.

Hyder, Tina. *War, Conflict and Play*. Debating Play Series. Ed. Tina Bruce. Berkshire, England: Open University Press, 2005.

Manitoba Early Learning and Child Care. *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Preschool Centres and Nursery Schools*. Winnipeg, MB: Manitoba Early Learning and Child Care, June 2011. Available online at <www.gov.mb.ca/fs/childcare/early_returns.html> (19 Sept. 2014).

Phillips, Eva C., and Amy Scrinzi. *Basics of Developmentally Appropriate Practice: An Introduction for Teachers of Kindergarten*. Washington, DC: National Association for the Education of Young Children, 2013.

Roopnarine, Jaipaul L., James E. Johnson, and Frank H. Hooper, eds. *Children's Play in Diverse Cultures*. Albany, NY: State University of New York Press, 1994.

For more information on how to support EAL learners, refer to the Early Years EAL Acquisition Continuum in Section 4a of the following resource:

Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

Chapter 3:

The View of the Child

Chapter 3: The View of the Child

Guiding Principle: The Child

Children learn in a variety of ways, and teachers value their many ways of understanding and constructing knowledge. Children come to school with their own experiences, social relationships, and abilities, are naturally curious, and are constantly learning.

Each child is on his or her own developmental path, and a group of same-aged children can be at different developmental levels that reflect individual characteristics and experiences of the children and their unique family and community environments and contexts. Teachers honour children as active participants in their own learning, and so offer them many opportunities to choose and direct their play experiences.

Thinking about Child Development

Some educators describe the guiding principle for this chapter as *developmentally appropriate practice (DAP)*. Developmentally appropriate early learning—whether in a child care program, nursery, Kindergarten, or other Early Years classroom—is child-centred, reflects family and community contexts, and encourages meaningful partnerships between teachers and each child, his or her family, and allied *early childhood development (ECD)* educators. Knowing about the way young children develop and learn helps us to be developmentally appropriate in our approach. Using a developmentally appropriate approach to Manitoba's Kindergarten curriculum helps teachers to differentiate instruction and engage young learners in their Kindergarten experience.

The *CMEC Statement on Play-Based Learning* (found in Chapter 2) reminds us that "learning through play is supported by early years experts," including many of the most influential

The DAP Debate

Some educators criticize the influence of a Westernized view of children's development on early childhood education practices, noting that other cultures may describe their children's development in other terms or value milestones other than those identified by many of the well-known names in child development theory. Since the early 1990s, active and important debates in the field of early education have tried to deconstruct the individualist nature of child development as the central construct in early childhood education, problematize the dichotomy between what is appropriate versus inappropriate in our practices, and draw in a wider variety of critical, feminist, post-structuralist, and decolonizing theories, research, and methodologies. This reconceptualization has an impact on our thinking about our educational purposes, our teaching practices, our approach to curriculum, and what we value about children's learning.

While no single theoretical perspective can ever fully describe all children and their learning, reflective teachers draw from multiple perspectives and practices to understand more fully the specific learning needs of individual and groups of children in their classrooms. This chapter addresses some powerful theoretical influences on and approaches to our early childhood practices.

child development theorists and the latest brain researchers. To offer young learners developmentally appropriate experiences, educators should begin with reflecting about the brain research and about the child development theory and research that have contributed many important insights into how young children learn. Keep in mind that recent research has shown children do *not* pass through discrete pervasive stages of development with defined starts and stops. Within broad developmental stages, children show concurrent and continuous incremental changes. Knowing this, you will observe a range of variation in developmental patterns and timelines in your classroom. Use developmental stages or benchmarks to guide your expectations and use what you know about the individual children to guide your curriculum planning.

Brain Research

"... the early years of child development set the stage for learning, behaviour and health throughout the life cycle" (McCain and Mustard 153).

In recent years, our understanding of how brains develop has grown tremendously. Some concepts from the brain research are important for teachers to know.

Thanks to advances in research in the neurosciences and biological sciences, we now know that a young child's ability to learn in Kindergarten is strongly influenced by the neural wiring that took place in the early years of life. From birth through about age three years, over 700 new neurons form in the child's brain each second (Center on the Developing Child, "Brain Architecture"). If a child lacks adequate socio-emotional, physical, cognitive, and language stimulation during the early years, neurons can be permanently lost.

Think of the building blocks of brain architecture as our genes (what we are born with), and our experiences as the lives we lead. Our earliest experiences build brain architecture; the ability for the brain to reorganize and adapt (its plasticity) is greatest in the first years of life and decreases with age (McCain, Mustard, and Shanker).

The back-and-forth process between parent and baby (or between teacher and student) is fundamental to the wiring of the brain, especially when children are young: "Serve and return interactions shape brain circuitry" (Center on the Developing Child, "Serve and Return"). Serve and return exchanges are also needed for children to regulate their emotions and develop language, gross motor skills (such as learning to sit, stand, and walk), and fine motor skills (such as learning to hold a pencil and tie shoes).

For some children, persistent stress in the absence of protective adult support is toxic; it can derail healthy development and have long-term harmful effects (Center on the Developing Child, "Toxic Stress").

Play helps develop the "whole" child by sculpting the brain; in fact, it is the instrument that most powerfully develops the child's executive functioning—the part of the brain that helps children to make decisions and regulate their own behaviour.

Child Development Theories and Approaches

An overview of some powerful theoretical influences on and approaches to our early childhood practices follows.

Attachment Theory

Attachment theory is the joint work of John Bowlby and Mary Ainsworth and is a widely accepted view of the emotional bond between infants and primary caregivers. It describes the intense emotional relationships and bonds humans share with one another. Attachment relationships can be described in broad terms as either *secure* or *insecure*, depending on the nature of the child's regulating behaviours.

"Maintaining a degree of proximity to attachment figures is one that goes the whole way through from infancy to old age"
— Mary Ainsworth
(Davidson Films, Inc.).

Variations in Attachment Practices

"Although the attachment relationship is universal, parents' attachment beliefs, values, and practices differ around the world. There is an increasing number and increasing diversity of immigrants and refugees coming to Canada from countries where attachment practices may differ from those which are dominant in Canadian health and social service milieus. When serving immigrant and refugee families it is important to consider whether the variation in their attachment relationships is based on differing beliefs and values related to parenting, as well as different goals for each stage of a child's development" (St. Joseph's Women's Health Centre 22).

"Refugee families incur many different types of stressors in the course of the phases prior to flight, those of flight, and resettlement. Multiple and varied negative life events and traumas, such as those experienced by refugee families, may give rise to negative changes in attachment between children and their parents" (Stauffer 150).

Attachment begins when babies receive the consistent nurturing needed for their survival and serves as the model for future relationships. When caregivers are responsive, accessible, and consistent in their ability to provide a protected and secure environment, children learn to trust and bond—that is, to attach. They develop an inner working model or set of expectations about the availability of attachment figures, their likelihood of providing support in times of stress, and the interaction of the self with those figures. The model becomes a guide or a template for all future close relationships children develop with peers, early childhood teachers, and future work colleagues, spouses, and even their own children (Berk 421).

When children have not developed a prior secure attachment with key family members, they do not learn to see the world as a safe place, and therefore it may be more difficult for you to develop a bond with those children during Kindergarten. They may be less trusting of adults in general and less sure that their needs will be met or that your classroom is a safe place to be. Attachment has an impact on children's self-efficacy (their belief that they can successfully do the work of Kindergarten) and self-esteem, which are vitally important to future success. Kindergarten children with attachment difficulties may struggle academically

Children benefit from warm, sensitive, and caring environments that help them feel safe.

because, unlike their securely attached peers, they are unsuccessful at attaching to you and may be fearful of you. They may lack confidence about their ability to learn, and do not use you as their secure base from which to venture into the world of learning. While many Kindergarten children demonstrate peer competency, some unattached children may demonstrate resistant or aggressive behaviours.

All children will benefit from the work you do to create warm, sensitive, and stable environments. You can read more about this in Chapter 5.

Cognitive Development Theory

Child development theorist Jean Piaget described how children "actively construct knowledge as they manipulate and explore their world" (Berk 20). This theory supports the idea that children benefit from the chance to engage in hands-on learning and is at the heart of the constructivist movement that has so greatly influenced early childhood education. When considering a developmentally appropriate curriculum, teachers recognize that play "enables children to progress along the developmental sequence from the sensorimotor intelligence of infancy to preoperational thought in the preschool years to the concrete operational thinking exhibited by primary children" (Bredekamp 3). Piaget calls the processes by which concepts are changed *assimilation* and *accommodation*. The child fits knowledge into a cognitive structure that is already formed (assimilation) and changes a structure to make it possible to include new knowledge (accommodation). These processes are the basis for learning throughout life.

"Each time one prematurely teaches a child something he could have discovered himself, that child is kept from inventing it and consequently from understanding it completely" (Piaget 715).

According to Piaget, the child cannot internalize new elements in the environment until perceptual ability is well developed. Until the brain is able to organize and reorganize the messages it receives, the child cannot make use of the perceptions that the sense organs may provide. Growth in perception and in the organization of cognitive structures depends on developmental processes. Early childhood, therefore, should be a time of rapid growth in the formation of both precepts and concepts, since future learning will be built on the structures developed in the first seven years. Educational principles that have emerged from Piaget's work include an emphasis on discovery learning, sensitivity to children's readiness to learn, and acceptance of children's individual differences. All these principles are discussed further within this document.

Piaget theorized that as the brain develops and children's experiences expand, they move through four broad stages of development: sensorimotor, preoperational, concrete operational, and formal operational (Berk 21). Piaget's early stages of learning are identified in the following table. Please note, however, that the stages extend through adolescence to adulthood.

Piaget's Early Stages of Development

Age Range	Stage	Characteristics
Birth to 2 years	Sensorimotor	Babies use their senses and growing abilities to move to explore the world and to "act" upon it. They invent ways of solving sensorimotor problems through trial and error, such as sucking on a nipple to make milk flow, pulling a lever to make the music start, or putting objects in and out of containers.
2 to 7 years	Preoperational	Preschoolers use symbolic but often illogical ways to think about the world, and their actions are becoming internalized. Language continues to develop and children may represent an object with a word or an image. Symbolic or make-believe play begins. The children do not fully understand rules, and the ability to conserve* may be emerging. * The understanding that certain physical characteristics of objects remain the same despite changes to their outward appearance.
7 to 11 years	Concrete operational	The reasoning shown by school-age children becomes more logical, flexible, and organized. They master the concept of conservation, can classify objects, and can seriate along a quantitative dimension, such as length or weight. However, they are not yet thinking in abstract terms.

Socio-cultural Theory

In his constructivist approach to understanding children's learning, Lev Vygotsky described cognitive development as a socially mediated process. He theorized that many cognitive processes and skills are socially transferred from "more knowledgeable others" (such as teachers and parents, but also peers) to children. Key concepts that influence our teaching approach include *scaffolding*, whereby we build upon what the child already knows or what the child can already do on his or her own. You can read more about scaffolding in Chapter 4.

Scaffolding

The concept of scaffolding is a linguistically appropriate teaching approach for EAL students. Recognizing the importance of home languages and literacy experiences and building on these in the classroom is a fundamental strategy for teaching English and new concepts in English (Chumak-Horbatsch).

"Play . . . creates the zone of proximal development of the child. In play, the child is always behaving beyond his age, above his usual everyday behaviour; in play, he is, as it were, a head above himself. Play contains in a concentrated form, as in the focus of a magnifying glass, all developmental tendencies; it is as if the child tries to jump above his usual level" (Vygotsky 102).

The *zone of proximal development (ZPD)* concept, introduced by Vygotsky, refers to the cusp of a child's emerging skills. While tasks within this zone may prove too difficult for a child to handle alone, with coaching and support from "more knowledgeable others," the child can perform the tasks successfully. In fact, "the fundamental way in which a child's higher mental functions are formed is through mediated activities shared with an adult or more competent peer" (Sparling 47).

The intentional teacher, therefore, encourages the child to stretch a *reasonable* amount to acquire new skills, abilities, or knowledge by ensuring goals are both challenging and achievable (Copple and Bredekamp, *Basics of Developmentally Appropriate Practice* 5). According to Vygotsky, make-believe play is a unique ZPD in which children try out a variety of challenging activities and acquire many new competencies that are mediated by the language of a more knowledgeable other. Kindergarten teachers ensure that they promote socio-dramatic play and allow ample time for this more advanced make-believe play form to unfold. Vygotsky-influenced teachers offer children many assisted discovery experiences, helped along by peer collaboration and the arrangement of cooperative learning experiences. (For more information, see Chapter 5.)

John Dewey and the Progressive Movement

"I assume that amid all uncertainties there is one permanent frame of reference: namely, the organic connection between education and personal experience" (Dewey, *Experience and Education* 12).

One of the most important influences on modern education was John Dewey, who is often referred to as the father of progressive education. He promoted the idea of experiential learning to engage children's physical, emotional, and mental aptitudes fully and to create opportunities for deeper understandings. He was the first to include Kindergarten teachers as an important part of his vision for a reformed education system for America. Dewey "imagined early learning settings as places for the creation of a community of inquiry where adults and children actively 'research' the world, co-constructing knowledge and understandings together" (Association of Canadian Deans of Education 1).

Constructivist Theory

"For whether one speaks to mathematicians, or physicists or historians, one encounters repeatedly an expression of faith in the powerful effects that come from permitting the student to put things together for himself, to be his own discoverer" (Bruner 22).

Jerome Bruner described the way children construct new ideas or concepts based upon prior knowledge. He stressed that learning is an active process and that children are active problem-solvers and capable of exploring "difficult subjects." He also emphasized the social influences on development. The educational philosophy described as the "spiral curriculum" emerges from his influence, as he described the way children revisit basic ideas over and over, building upon them and elaborating to the level of full understanding and mastery. Bruner valued discovery learning, recommending a learning environment that encourages children to explore a predetermined problem. Instructional support guides the learner to make a series of discoveries that lead to a predetermined goal. This approach is often used in science and mathematics learning.

Ecological Systems Theory

"Learning and development are facilitated by the participation of the developing person in progressively more complex patterns of reciprocal activity with someone with whom that person has developed a strong and enduring emotional attachment and when the balance of power gradually shifts in favour of the developing person" (Bronfenbrenner 60).

Urie Bronfenbrenner asserted that human development is influenced by factors operating at different "systems levels" within a broad ecological structure. As such, everything in a child and his or her environment affects how the child grows and develops. As illustrated in Figure 3.1, the child who exists at the *microsystem* level is affected by all the concentric systems that surround the child (Berk 28), including

- the immediate family, the neighbourhood, and the child care centre or school (the *mesosystem*)
- parental workplaces, friends and neighbours, extended family, and the community in which institutions and services are located (the *exosystem*)
- the policies and protocols of governments and employers that influence family decisions, and the values and laws of the province or country (the *macrosystem*)

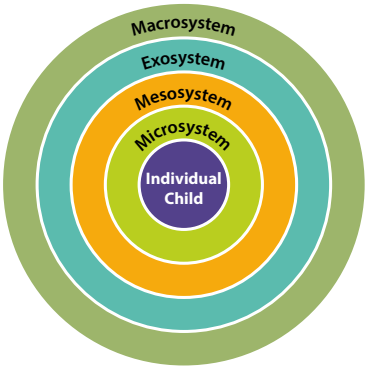


Figure 3.1:
Levels of Ecological Systems Theory

Manitoba's child-centred policy focus is an example of how changes at the macrosystem level have had a major influence on the lived experiences of the youngest citizens of our province. When Kindergarten teachers actively engage with families and other allies in related early childhood development sectors (the mesosystem) to create seamless transitions for children and to align their curricular approaches, children are the beneficiaries. (This approach is discussed further in Chapter 10.)

Social Learning (Cognitive) Theory

"... knowledge is probably gained ... through social comparison of success and failure experiences. Children repeatedly observe their own behaviour and the attainments of others" (Bandura 421).

Canadian psychologist Albert Bandura reminded us about the important role vicarious learning plays in the way children learn. According to Bandura, vicarious learning is the process of learning to copy or model the action of another through observing another doing it. Children's ideas about gender roles or their use of aggression as a means to an end in order to achieve their goals can be attributed to imitation. Children identify with the model, which may be another child or an adult, and take on behaviours, values, or beliefs as expressed by the model. Bandura states that children's beliefs about their own efficacy develop as they watch others engage in self-praise and self-blame, and so gain feedback about the worth of their own actions (McLeod).

The Montessori Approach

"I do not think, I observe" (Montessori).

The Montessori approach was founded by Maria Montessori, the first female physician in Italy. She worked with disadvantaged children in Rome to hone her theories on child-driven, self-motivated learning and human development throughout the lifespan. The Casa dei Bambini (Children's House) opened in 1907, and was the first truly child-centred space for children, including novelties of the time such as child-sized furniture. She argued that when children are free to choose from a rich and intentionally "prepared" learning environment, their development is optimized. The Montessori approach is a constructivist model that emphasizes children's independence, discovery learning, long uninterrupted blocks of work time, and the use of specialized Montessori learning aids. To Montessori, "teachers are part of the prepared environment; their roles, beyond providing didactic learning materials, are to act as advisors or guides and serve as catalysts of learning rather than as deliverers of information" (Estes 150). Today, there are Montessori preschools around the world. In Manitoba, most are licensed early learning facilities that may also offer Kindergarten.

The Reggio Emilia Approach

"The child is made of one hundred languages" (Malaguzzi, as cited in Edwards, Gandini, and Forman, *The Hundred Languages of Children* 3).

The Reggio approach has become a growing influence on current thinking about early childhood education. Reggio Emilia is the name of a Northern Italian community with a well-developed early childhood philosophy that has inspired teachers around the world. Loris Malaguzzi, the founder of the movement, described his image of the child as "rich in potential, strong, powerful and competent and, most of all, connected to adults and other children" (Malaguzzi 10).

The Reggio approach emphasizes children's inherent right to be respected and valued for themselves, and recognizes their curiosity and open-mindedness to all that is possible. Reggio-inspired teachers

see children with exceptional learning needs as having "special rights" rather than "special needs." The approach focuses on symbolic representation, and young children are encouraged to express themselves through "multiple paths and all their 'languages', including the expressive, communicative, symbolic, cognitive, ethical, metaphorical, logical, imaginative and relational" (Edwards, Gandini, and Forman, *The Hundred Languages of Children* 7). The Reggio-inspired notion of the hundred languages of children is a metaphor that highlights the many ways of expressing our thinking and our feelings, using many modes to represent our experiences. In addition to talking and writing, the hundred languages might include building with blocks, creating with wire and clay, painting, acting, dancing, singing, and more.

Crucial features of this constructivist approach include the active engagement of parents in the development and management of early childhood services. A cornerstone is for children and adults to participate as citizens in a community. The role of the teacher is as an enthusiastic learner and researcher rather than the expert who imparts knowledge to students. Reggio-inspired teachers believe that children are capable of making a hypothesis, constructing a theory, and knowing who and when to ask for collaboration and help to resolve their problems. As such, Reggio-influenced teachers help to facilitate, guide, extend, and provoke children's learning using a project-based approach.

The learning environment (described in more detail in Chapter 5) has a special role in Reggio-inspired classrooms "where it is understood that the environment should support the work and the interest of the children without constant adult guidance and intervention. The children work in the spaces . . . and build their stories there" (Wurm 40). In these spaces, teachers and children "are co-constructors of knowledge . . . [and] embrace the total learning experience—both process and product" (Estes 158).

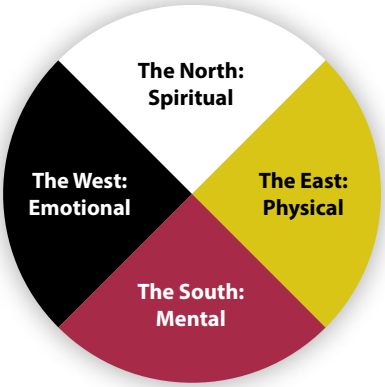
Indigenous Perspectives on Child Development

Indigenous people of Canada have an inclusive, strength-based traditional saying to describe child development: *All children are the gift of the Creator.*

Indigenous concepts of child development (similar to Bronfenbrenner's Ecological Systems Theory) are based on a holistic approach to health:

> Most Aboriginal people believe wellness is achieved through the balance of body, mind, emotion, and spirit. Holistic health incorporates the physical, mental, emotional and spiritual needs of the individual, family and community. Things become holistic when all of the dimensions of the whole being are considered. We may address each dimension individually but must realize they are all connected. Each part enhances, supports and affects the other. Each of these dimensions consists of wellness factors. The range of individual wellness is reflective of how each of these factors is addressed. We use this concept to understand Aboriginal child wellness. Some Aboriginal groups may not use the concept of the wheel; however, the idea of holistic wellness is common to all Aboriginal people. (Best Start Resource Centre 19)

This holistic approach is represented in Figure 3.2 by the four directions of the Aboriginal Child Wellness Wheel.* The four quadrants of the circle represent the following developmental domains:



Physical—includes motor development, sleep, body weight, nutrition, medical care, and physical environment

Mental—includes cognitive and language development

Emotional—includes social and emotional development, including self-confidence and a sense of belonging

Spiritual—includes the child's relationship to self, family, nation, land, animals, and the spirit world

Figure 3.2: Aboriginal Child Wellness Wheel*

* Source: Best Start Resource Centre. *A Sense of Belonging: Supporting Healthy Child Development in Aboriginal Families*. Toronto, ON: Best Start Resource Centre, 2011. 19. Available online at <http://beststart.org/resources/hlthy_chld_dev/pdf/aboriginal_manual_rev4.pdf> (16 Dec. 2014). Adapted with permission from the Best Start Resource Centre.

A Developmentally Appropriate Approach

The theoretical foundation to developmentally appropriate practice is that teachers focus on the whole child—that is, on the child's mind, body, feelings, and the social context. Developmentally appropriate practice is not a curriculum itself, but rather a pedagogical approach grounded in the research on how young children develop and learn, as well as evidence-based practices about educational effectiveness. This approach promotes the idea of meeting young children where they are developmentally as individuals and as part of a peer group, and with a full appreciation of each child's contexts for living and growing: family, religion, ethnicity, race, socio-economic level, or other variables that may be having an impact on the child in our classrooms.

Developmentally appropriate practice (DAP)

> calls upon the teacher to make sure that the daily activities and environment provide engaging, learning experiences for every child in the classroom. . . . [In] a DAP classroom, a teacher's nurturing disposition is welcomed but is not enough. Instead, this loving of children should act as the spur that pricks the sides of the teacher's intent to make the professional decisions necessary for the education and guidance of children, both as individuals and as a group of learners—decisions based on age, individual, and cultural appropriateness. This professionalism is key to best practices in the classroom. It is what makes teaching young children an awesome challenge and wondrous privilege for the DAP intentional teacher who every day manages an active mix of child-guided and teacher-guided learning experiences to bring fun, joy and wonder to each child's early learning development. (Mesrobian)*

Fun Joy Wonder

* Source: Mesrobian, Joyce. Review of *Developmentally Appropriate Practice in Early Childhood Programs*. 3rd ed. Ed. Carol Copple and Sue Bredekamp. *Chicago Metro for AEYC*. Web. <www.chicagometroaeyc.org/files/pdfs/DEVELOPMENTALLY-APPROPRIATE_PRACTICE.pdf> (4 Apr. 2013). Used by permission of Chicago Metro AEYC/chicagometroaeyc.org.

Reflection: Your Developmentally Appropriate Kindergarten

What does your developmentally appropriate Kindergarten look like? How and when do you do the following?

- help children to integrate new learning with prior knowledge and experiences through extended explorations and project work
- involve children in hands-on experiences with other children, adults, and materials in the learning environment
- emphasize opportunities for language development and emergent literacy and numeracy experiences that include reading to children in school and encourage the extension of these activities at home
- involve and welcome parents to share information about their children, become engaged in their children's learning, and participate in classroom learning (as families feel comfortable)
- differentiate instruction to offer a balance of small-group, large-group, and individual learning activities
- assess students' progress through close teacher observation and systematic collection and documentation of students' work
- develop children's social and emotional skills, including self-regulation, pro-social skills, and conflict-resolution strategies

Meeting Learners' Needs for Development and Success*

EAL learners will progress at different rates through the stages of development outlined in the Early Years EAL Acquisition Continuum, depending on factors such as

- educational background and prior learning experiences
- personal characteristics, learning styles, and ability
- the nature of the EAL program supporting them
- confidence and motivation
- linguistic distance between their first language and English
- socio-cultural distance between home culture and Canadian culture
- extent of support from home and the community

English language proficiency and knowledge of Canadian culture are fundamental to learner success. The education system must respect and value an individual's first language(s) and culture and recognize the importance of the continued use of the first language(s). Learning is enhanced by the judicious use of two or more languages. To facilitate learning, learners should see their literature and cultural experiences reflected in the classroom.

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* Source: Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft*. Winnipeg, MB: Manitoba Education, 2011. Section 1, 1.12, 1.20. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

Developmentally Responsive Teaching

According to the National Association for the Education of Young Children, child development principles should form the theoretical orientation to our pedagogical approach (*Developmentally Appropriate Practice in Early Childhood Programs*). Kindergarten children are generally developing rapidly and concurrently across all their domains. Your awareness of these growth patterns allows you to seize opportunities to foster children's development. It is not the Kindergarten teacher's responsibility to teach reading, writing, and mathematical skills per se. Rather, consider how you provide a rich environment in which children have many opportunities to build friendships, talk to one another, regulate emotions, use writing materials, explore their curiosity, pretend, read, and count while they play. How do you guide them through those opportunities?

Intentional teachers devise a variety of interesting and challenging learning experiences to integrate the acquisition of numeracy and literacy competencies into their play-based approach to teaching. Some children develop special interests and reach out for symbolic learning at an early age. For those children who begin to read and to work with numbers, additional planning is required in order to offer learning experiences in their zones of proximal development. These learning activities should continue only as long as the children have these particular interests. Be ready to recognize and accept individual learning patterns and characteristics. Your most important role is to recognize and provide learning opportunities for each child.

"Play" Experiences

In many situations, young children in poverty, in isolated environments, or in refugee camps will have limited or quite different "play" experiences. In such cases, they learn by "working" with other children and adults as they help garden, collect water and wood, cook, herd, hunt, and engage in many other work activities. Sometimes play is introduced in these work activities through singing, storytelling, and other forms of "play."

The child's learning comes through play: "Play contributes to the emotional, intellectual, physical, social and spiritual development of the child in ways that cannot be taught through instruction" (Zigler, Singer, and Bishop-Josef vi). As children develop more sophisticated ways of perceiving and conceptualizing, you will need to enhance and enrich your Kindergarten learning program. Didactic or rigid mechanical teaching of skills that disregard the child's interests or developmental levels has no place in a developmentally appropriate Kindergarten. Kindergarten teachers know that "play nourishes every aspect of children's development. It forms the foundation of intellectual, social, physical, and emotional skills necessary for success in school and life" (Canadian Council on Learning 2). Developmentally appropriate teaching strategies influence learning environments, curriculum, family involvement, and assessments. As such, their use enhances each child's potential and educational possibilities. You can read more about this in Chapter 4.

Nurturing Curiosity and Creativity

Children who are becoming increasingly aware of the wonder and complexity of their world have many questions to ask and are capable of posing their own hypotheses, creating their own theories, and carrying out their own investigations with the support of teachers, families, and peers. When adults do provide answers, these answers should be intellectually honest, but stated in terms that children can understand. The child who is asking about lightning, for example, may have seen the flash of a short circuit and be satisfied that these two phenomena have much in common. That child may be more satisfied, however, if the teacher gets batteries and wire from the school science supplies and works with the child to create a "jumping" current.

When you see a child showing an interest, respect it, support it, and extend it. The child is a learner, but so are you, and together you can co-construct meaning. Value the learning that is inherent in relationships, recognizing the socio-cultural nature of learning. Value small-group interactions where children can see, hear, and listen to one another. Within the small group, children can better negotiate, collaborate, play, and exchange ideas. You can read more about the importance of the social environment and the benefit of small learning centres in Chapter 5.

Because young children are just beginning to learn how to organize and interpret information, they can hold contradictory explanations and not be troubled by them. They are also apt to cling to an old erroneous explanation even when offered a new one. It is necessary to offer explanations that can be built on by accommodation, rather than ones that inhibit future learning.

It is sound pedagogy to help children carry out simple investigations or to give them appropriate pictures or resource materials to enable them to find their own answers. *Children who do not receive some response to their important questions generally give up asking them*. Blocking their natural curiosity seriously impedes future learning. Curiosity must then be re-stimulated by a persevering teacher.

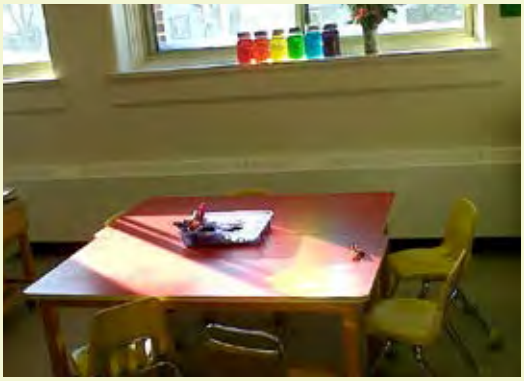
Creativity can be defined as "being able to think or express oneself in an original manner." Each child receives sensory stimulation and organizes this information in unique ways. Children who have their ideas ignored or ridiculed generally cease to be creative and try to produce what they believe the teacher expects. A child who feels secure that the teacher will accept, understand, and praise fledgling efforts will continue to be creative. The young child is not ready for consistently logical thinking. You can foster creativity by encouraging the child to think in ways that do not require logic or realistic viewpoints.

As children develop into divergent thinkers, they may freely express their ideas in inventions, visual art forms, music, and literature. Do not stifle the childlike thinking that may appear to be illogical. While logic is a powerful tool for learning, creativity is the source of original ideas and can add joy to life. Creativity needs encouragement and stimulation, but it also needs protection. The child who grows up able to be creative when creativity is needed, and logical when logic is necessary, develops into a powerful thinker.

With *provocations*, intentional teachers thoughtfully plan which toys, furniture, and other learning materials they will have in their classrooms. You can specifically arrange materials in response to children's interests, to stimulate their thinking and to create an environment in which explorers and investigators are supported. You can read more about this in Chapters 4 to 6.

The Rainbow Provocation

During an exploration about colour and tint, children dripped food colouring into jars of water, predicting how many drops it would take to get to the desired hue, and tracking their results. The next day, their teacher carefully placed the jars onto a sunny windowsill. When the children arrived, they were thrilled to see the jars acting like a prism, creating rainbows across their classroom. This provocation took the children in a new direction related to learning about rainbows, reflection, and refraction. (See Chapter 4 for more information about provocations.)



The sunlight shines through the jars filled with coloured water, creating rainbows in the classroom.

Learning about Differences

Children are not born with prejudice "wired" into their brains. They may develop prejudice as a result of their experiences in their homes, the community, schools, and society in general. Many educators feel that young children are bias-free. Often teachers think of children as being "colour blind" or "difference blind," but young children do see, hear, and feel "difference." It is important to recognize that *seeing, hearing, or feeling difference is not the problem, but the values or meaning attached to the perceived differences and how they influence behaviour may be problematic.*

Prejudices are preconceived ideas about people that are perceived as being different due to a number of characteristics, such as skin colour or "race," religion, culture, gender, abilities, appearance, language, sexual orientation, religion, or social status. Research suggests that young children begin developing attitudes about various groups in society as early as age three or four (Bergen; Wagenaar and Coates; Fowler; and Kang and Inzlicht). While such prejudicial attitudes are not yet deeply entrenched or hardened in young children, they become more difficult to change as children grow older.

Young children learn prejudice through living in and observing a society where prejudice and discrimination exist, influenced by what people around them think,

say, and do through association, reinforcement, and modelling. Children learn prejudice as they become aware of negative attitudes about the differences they see reflected in their classrooms, in their community, or in the media and larger society. Research suggests that young children are especially susceptible to developing and holding prejudices through instruction, as they may have limited personal experiences that counter the prejudices and more limited ability to make personal judgments that diverge from dominant stereotypes (Augoustinos and Rosewarne).

Through the messages they receive in the world around them, young children may learn to associate a particular ethnic or cultural group with things such as poverty, crime, violence, limited intelligence, or other negative attributes. Young children will "reproduce" these messages through frequent exposure and through reinforcement of the messages by significant others, such as when peers or older siblings laugh along at a derogatory or humiliating comment or "joke." Conversely, social learning theory suggests that the adults who surround and interact with young children can help *prevent the development of prejudice.*

Countering prejudice can become a primary challenge in your classroom. As you learn about the children in your classroom, focus on teaching them about positive elements of equality and diversity. Children are influenced by their own experiences, so it is not enough for teachers and parents to talk about these issues. You need to create situations and environments that foster positive experiences among children from all backgrounds (Kang and Inzlicht), gently challenging, confronting, and disrupting children's misconceptions. You can read more about this in Chapter 9.

Young Children and Identity Formation

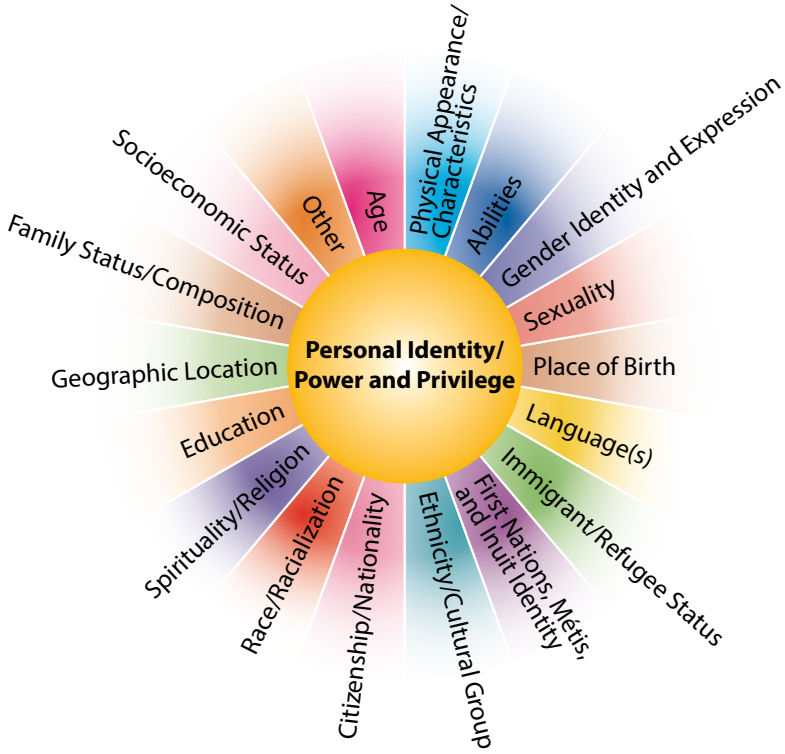


Figure 3.3: Identity: Power and Privilege

As illustrated in Figure 3.3, we all hold multiple identities, with ethnicity, class, gender, language, religion, political beliefs, and so on, helping to define who we are. Not all elements of our identity have the same force, however, and their relevance changes with our personal and social conditions and contexts. These dimensions of identity and group belonging have important connections to power and privilege in society and are far from neutral. For example, the language someone speaks and even the accent someone possesses may have a significant impact on how others see that person and on the privileges given or not given because of the values attached to that specific language or accent.

At school entry, young children already bring with them an initial sense of their

identity—who they are and to which groups they belong. Their sense of identity will continue to be shaped by their experiences in school, at home, in the community, and in the broader society.

Social Exclusion and Child Development

"Social exclusion affects Canadian children by the time they reach kindergarten, since some children are more 'ready for school' than others. These differences are not randomly distributed in society but follow a predictable, systematic pattern. As one looks across the socioeconomic spectrum from the children of the wealthiest and most educated families, to those from the middle, to those from families with the least income and education, an increasing proportion of children are vulnerable in terms of readiness for school: intellectually, socially, emotionally, and physically. This pattern, wherein risk increases in a stepwise fashion as one descends the socioeconomic ladder, is known as a 'gradient.' The gradient in child development is an important aspect of social exclusion because, once established, it tracks across the life course. Those who enter school in a vulnerable state will tend to be less healthy, experience lower levels of well-being, and be more likely to end up in socially marginal positions as life unfolds" (Hertzman).*

* Source: Hertzman, Clyde. *Leave No Child Behind! Social Exclusion and Child Development*. Perspectives on Social Inclusion Working Paper Series. Toronto, ON: The Laidlaw Foundation, May 2002. 1. Available online at <www.cccabc.bc.ca/res/pubs/pdf/hertzman.pdf> (17 Nov. 2014). Reproduced with permission.

Children's sense of self and their perceptions about themselves will be shaped by how others see them and the values others attach to these aspects of identity. When children learn and are continually exposed to negative concepts and views, or are discriminated against because of the groups with which they are associated, they often develop negative self-concepts and face social exclusion.

Vignette: Focusing on Anti-bias Practices and Social Justice

A teacher describes an opportunity to teach children about cultural differences:

> I try to be as straightforward as possible. The most recent question in our . . . class was about Ajay's turban. Some children thought he was a girl because his hair is up, and then they questioned why he wore "the little cloth." I told the children their new classmate was a boy, and it was part of his Punjabi culture to wear his hair like that. We taught the children the proper name for his headdress—*dastaar*. Ajay gradually gained the confidence to answer some of the children's questions himself. (Chu 86)

Developing Literacy and Numeracy

Early numeracy and early literacy are key priorities for the Manitoba government, and their importance to children's school experiences is well recognized by many school divisions. How do these important life skills develop in young children? Literacy and numeracy learning arises in authentic and socio-cultural contexts, ideally with the attention and support of caring, collaborating, co-inquiring and intentional adults.

Some children's prior literacy or numeracy experiences may look very different from those we offer (and value) in our classroom environment. For example, parents may read newspapers in their own language, not English, and may read to their children at home using books written in their language. While some families make grocery lists before they head out for their family shopping excursion, others visit food banks and bring home whatever is available. In some households, the grandmother may do the grocery shopping while the family members are at work and at school, so that children may have limited opportunity to be in the grocery store, but may frequently listen to the grandmother's account of traditional recipes, and help measure ingredients and prepare meals. In some cases, children may play video games alongside an older cousin, and while they can predict the pattern built into the game and thus know how to advance to the next level, there is not a book to be found in the house.

The varied circumstances that have shaped our culturally diverse students (e.g., immigration, education, or economic factors) influence how they and their families perceive their world; how they communicate their thinking, understanding, and learning; how they make meaning; how they build their identity and their relationships with their community; and what they do with what they know. Thus, each family views and perceives literacy and numeracy in different ways. An idea that is central to this thinking is that *different* is not an educational deficit but an educational asset. The child's identity is influenced by home language, culture, and way of being, and you can support your students best by celebrating and building on their home language and cultural perspectives (Gottlieb and Ernst-Slavit 11). For example, traditional art forms such as songs, beadwork, dance, and oral storytelling may differ from the art commonly found in many Manitoba schools, but should be valued and may be used as bridges into school literacy and numeracy practices.

Of course, our own personal experiences, perceptions, and values influence our expectations of children and their families regarding communication, thinking, and relationships, and they influence what we believe children should be able to do with what they know. We may have to check our own biases and commit to learning more about our students and their home experiences. We do this through observing the children while they are playing and learning, and through talking with their families to find out what languages they speak at home, what their household practices, cultural values, and norms are, and how these factors contribute to the development of their children's literacy and numeracy.

Listening and Speaking

Prior to arriving at school, a child's language growth is entirely dependent on what people say to the child—how often they talk with the child, what they talk about, in what dialect or language, and in what way—whether gentle and explaining, or directive and imperative. During their preschool years, almost all children acquire the sounds and structure of the local dialect. This occurs through interactions with parents, caregivers, siblings, and the community. Whatever unique version of language a child possesses, oral language is a personal and valuable resource. Virtually all children acquire complex and abstract systems of language without direct, explicit instruction.

Cultural and Language Programming

Schools that include cultural and language programming for their First Nations, Métis, and Inuit children capitalize on a powerful positive practice supported by current literature. This is also true for other cultural and linguistic groups. Be aware that children whose first language is Cree or Ojibwe may not hear certain sounds in the English language (e.g., /v/), as they do not exist in their first language.

It generally takes from one to three years for EAL learners to acquire basic communication skills in English. Learners go through stages of EAL acquisition. Your knowledge of these stages will help you to provide appropriate language learning opportunities.

Entry to school places big demands on a child's existing language skills as new experiences unfold and conversations move into new territory—new relationships, objects, properties, activities, and information require that language will grow to include ways of talking about them. As a result, vocabulary will increase and language structures will expand. As a speaker and a listener, in instruction and in play, the child learns more about language. Through opportunities to communicate with new adults and other children, the child learns more about speaking and listening every time conversation takes place. Language development is essential to learning, and plays a crucial role in the later development of successful readers.

You can learn about a child's language—his or her ability to communicate and to engage in conversation—through observation. You can also extend a child's language through intentional planning for situations in which real problems that need real solutions are encountered, and planning for two or more children to work and talk together about their problems in flexible small groups. The key is to be aware of the importance of fostering a wide range of language use and to be a good observer. You can read more about intentional strategies to support children's language development in Chapter 4, about the English language arts curriculum in Chapter 8, and about collaborations with parents and other professionals such as speech-language pathologists in Chapter 10. Refer also to *Listening and Speaking: First Steps into Literacy* (Manitoba Education, Citizenship and Youth).

Growing Readers and Writers in Kindergarten

Literacy Instruction

Literacy instruction for EAL students incorporates

- letter and word level knowledge
- instructional comprehension strategies to model and scaffold the comprehension process (e.g., supporting text with pictures, using bilingual books, activating prior knowledge)
- frequent opportunities to practise (Barone and Hong Xu)

Consider how children have learned to speak. Without direct teaching or drilling, children have expertly learned to produce the right sounds, organized in an extremely complex way, to express an infinite number of ideas. They have done much more than just mimic. They have learned to express their own thoughts in sentences that they themselves create. This has not been a simple development; similarly, there will be nothing simple about how children learn to read and write.

Children are all so different. They arrive in your classroom having come from different environments where they learned different things through their prior personal experiences. Children's identities as readers, their knowledge and experiences, their curiosity, their imaginations, and their unique ways of perceiving themselves and the world around them are strengths for you to use as a foundation for their learning.

As a teacher, you will need to be able to see each learner as unique, sensitively observing as each child reacts and responds to text and takes up new ideas. Children have an opportunity in a Kindergarten classroom to become part of a community of inquisitive learners.

When a Child Reads

When children come to school, they will already know something about the world of print from unique environments, and you will find it worthwhile to value that knowledge. Children who have listened to stories being told, and who can retell stories in their own way, also have a big advantage. However, if those kinds of experiences have been limited, there is opportunity in the Kindergarten classroom, through one-to-one interaction or in small-group or whole-group settings, to make up for limited prior opportunities.

Just as children are complex, so is reading: "Reading is the transfer of meaning from one mind to another through the medium of written language" (Butler and Clay 7). This definition does not clarify how either mind works to accomplish the transfer of meaning, but if we think about the receiver of the message (i.e., the mind of the reader), we can begin to think about how complicated and variable this process might be.

A child who learns to read Arabic or Hebrew will learn to read from right to left; a young reader of Chinese will read from top to bottom, rather than across the page from left to right.

Learning requires effort, and the effort must be perceived as worthwhile for the learner. Learning should be joyful and have benefits for the individual. Your role as a teacher is to facilitate and differentiate learning for the individual child. Facilitating learning will require systematic observation, a variety of approaches, and sensitivity to the emergence of reading and writing competencies within each child in your class. There will be differences between children for many different reasons, "but there is one aspect of this development that [you] can influence and foster; [you] can provide appropriate opportunities for the child to learn" (Clay, *An Observation Survey*, 2013, 10).

Reading involves four aspects of language that occur simultaneously:

- **Messages expressed in language:** Usually the language found in books differs from the conversational language used in classrooms and homes. While conversational language will continue to grow in complexity of meaning and syntax with experience, children's ears will also become attuned to the language found in books if they have frequent opportunities to hear it.
- **Conventions used to record printed language:** Reading involves knowing about conventions such as the directional rules, spacing, punctuation signals, change of speakers, surprise or emphasis, and questions. When children begin to learn about print, they need to know the "rules of the road"—which way to go and what the signposts signal.
- **Visual patterns in print:** Reading involves visual patterns such as groups of words, parts of words, clusters of letters, and single letters. Individual "pieces" may be challenging to understand and difficult to fit into a meaningful context. Children need to learn how to look at print, and many teachers use a whole-part-whole approach as they support their young readers. For example, we know from experience that if we can first see the complete image for a jigsaw puzzle, we have a framework and valuable information we can use to fit the pieces together. This is true for readers, too. Since it is easier for the mind to grasp the "whole," begin with a whole story. Then, offer children instruction as needed. For example, how do the words children already recognize and know fit together into the whole story? How do new and unfamiliar words fit in? How do clusters of letters come together to represent sounds in those words? What letters that children already know make up those words? Once the new word is known, put it back into the whole story and enjoy it together. Beginning and ending with the whole story, or sentence, or word helps children to make sense of a small piece being highlighted during your brief detour in the "lesson."

- **Listening to language:** Reading involves listening to language, hearing the breaks between words, and hearing the sounds within a word. This is not easy, and having difficulty is not strange. If you think about the challenges you may have had in hearing the individual sounds in a four-part musical harmony, you can understand how difficult it might be for a child to hear the sounds within words.

Once children understand that the "message" to be taken from reading, embodied in language structure, is the "whole," the "parts" will make sense. That is why reading and telling stories (both fiction and non-fiction) is so important. Once this concept is clear to the individual child, experiences that draw attention to the phrases, words, and letters will fall into place more easily.

Two girls read together.

Stanovich wrote about the "Matthew effects in reading." The more opportunities a child has to work with reading books and writing messages, the greater the number of positive experiences with patterns of language and experiences of letter-sound relationships are possible, and the more likely it will be that the child will be a keen reader. That is why it is not unusual to find children asking for favourite stories to be reread again and again (sometimes many more times than one might expect). Repetition helps build up experiences and provides opportunities to attend to more of the detail, to notice new aspects previously overlooked, and to link up what is already known to new thinking (what Piaget calls *accommodation* and *assimilation*).

Changes in a Young Reader

The following table illustrates some of the observable behaviours teachers may see in young children as they think and problem solve while reading.

Observable Behaviours in Children's Reading*

The behaviours and changes you may see while children are reading may include the following. These possible changes from simple to more complex are NOT stages, and are not listed in terms of sequence of emergence or priority.

When children are starting school, you may observe that they

- tell a story that could be in the print
- match a page-by-page "reading" with the book
- pay attention to forms and patterns in print
- try some analysis of pictures and print
- enjoy some arrangements of signs in print (e.g., their name, !, ?, **bold**)
- pick out one or two words (lapsing sometimes)

When those experiences are comfortable for children, you may observe that they

- pay attention to shape, size, position, and patterns in print
- search their oral language to find a "best" way to express the pictures
- have some knowledge of direction (left to right and top to bottom) and order on the page (this may be insecure)
- usually attend to the left page before the right
- try to use language appropriate to a book
- point to print, trying to match word by word

As children begin to negotiate their way around books, they

- will orient the book and the direction of reading much more automatically
- approach print word by word in reading
- know that print carries the message
- attend in a focused way to some easy-to-see and -hear "parts" of the print—phrases, words, letters
- show awareness that oral language is closely related to print
- know that the picture gives some (but not all, and sometimes extra) information that will be found in print
- try to read simple story texts
- understand the concepts of first and last parts—of a story, a book, a line, a word

Some children become proficient with these emergent factors and gradually are able to use them together to

- work across print, using oral language and meaning as a guide while they look word by word—this may temporarily sound laboured and slow because they are working to match what they see with what they say
- begin to notice discrepancies when an error occurs and may self-correct
- select the "next words" often based on oral language knowledge and an expected order based on anticipated meaning
- read in short phrases sometimes
- pay attention to punctuation and visual features in print
- gather up concepts about print, gain more letter knowledge, and demonstrate this in attempts in writing

All children may hesitate while reading, pondering the letters or a cluster of letters when encountering a new or unusual word from time to time. What is important is to give them the opportunity to think about how to solve the problem for themselves.

* Adapted with permission from the following source: Clay, Marie M. "Table 1: Hypotheses about possible progressions in acts of processing occurring in early reading and writing for tentative and flexible discussion." *Change over Time in Children's Literacy Development*. Auckland, NZ: The Marie Clay Literacy Trust, 2001. Pages 84–85.

Your Role as Teacher

You are likely thinking about all the opportunities you can create when reading to children, sharing the reading of a big book or a chart, and reading with individuals and small groups. After first enjoying a wide variety of genres of written text with children, you can follow up by pointing out print concepts or modelling your own thinking aloud.

Children will gradually come to understand how print works. They may find it challenging or easy. They may begin to control only a few items, or they may control many complex concepts. They may begin by inventing, shift to copying, and then begin to construct deliberately for themselves. When assisting children's reading efforts as they learn to work with text (as with oral language development), the adult's role can be to encourage children to do what they can independently, to support and co-construct with them on some parts, and to do some of the task for the children. This will be an ever-changing mixture of interactions, which you will shift as the children change. What children know will change from simple to complex, from slow to fast, and from inconsistent to well known and flexible. Keep in mind that every time you talk with children about reading, you place value on it, regardless of what you say. Valuing children's efforts is continuous, individual, personal, and powerful.

A Child's Development as a Writer

From three to seven years of age, children begin to build a foundation for growth as readers and writers, and this forms the basis for what follows in formal education. Writing is one of the ways in which children explore their understanding of the world and their understanding of themselves. Learning to write and learning to read are two sides of the same coin, each contributing greatly to the other.

Purposeful writing allows the children in your classroom to learn to use language to explore meaning and then to communicate those understandings. Writing can be used to tell the stories that are important to them, to coax or influence others, to communicate joys or sorrows, to rage, to delight, to praise, to comment, to remind, to celebrate, to make requests—to do a multitude of things!

Some ways you might encourage children to engage in writing are to

- record events (e.g., lists, diaries, commentaries, autobiographies, letters, research notes, meeting notes, letters or notes to family or friends, transcriptions, reports, family history)
- explain (e.g., charts, recipes, brochures, captions, instructions, character sketches, definitions, excuses, game rules, handbooks, textbooks)
- persuade (e.g., advertisements, invitations, signs, placards, warnings, book covers, reviews)
- invite a response (e.g., questions, complaints, invitations, lost and found notices, notes, requests, wanted notices)

Forming Intentions

Learners write best on topics they "own," and this is true for the young children in your classroom. This does not always mean they have selected their topics without help from you or from a stimulus; however, it does mean they will have something to say in their own voice about their subject, which is the best purpose for writing.

You will likely find that Kindergarten children will draw a picture about something they know or something they have done, and may make some tentative first attempts to write about it. You can increase the likelihood for spontaneous writing while children play by providing writing tools such as clipboards and pencils in a variety of places in the classroom so children have more opportunities to experiment with drawing and writing. What matters most is what the individual child thinks and feels. You may wish to keep a list of each child's topics, referring to it as his or her "personal topics" list.

Children can write about many things that are going on in the classroom and outside. Topics to write about may come from what children have seen, talked about, heard, and read. The opportunity to explore their own ideas for a topic by talking with you, their peers, other adults, and their own family to find out what others think and to clarify their own thinking is of paramount importance for children. Be prepared to accept that a learner's topic choice may be a better idea than the one you yourself may have suggested. By empowering children to recognize the value of their own interests and experiences, they learn to choose their topics for themselves, retain ownership of their writing, and have a purpose for writing.

"Writing floats on a sea of talk"
(Britton 164).

Getting It Down

As emergent writers, children's attempts to write may be little more than a few purposeful scribbles on a page. However, when you demonstrate, share the task, and talk about what you are thinking and doing as you write, children quickly become eager to try it for themselves. Every attempt is one step closer to a more conventional representation and needs to be encouraged and celebrated. One of the most important words children first show an interest in recording is their own name. This may not be a simple task, but it is a critical statement of identity and its meaningfulness to the child should not be underestimated.

The child has written random letters.

Children grow as writers at their own rate, making leaps, and possibly moving back to an earlier way of recording. You will find they are responding to opportunities, guidance by others, and feedback on what they have shown they are able to do so that their next learning step makes sense to them.

Early on, children may use some letters, or some letter-like symbols, or even numerals to represent their message. The marks may not yet have sound-letter relationships and may be strung together in a

The child has the beginning and middle sound "RKK" (rocket).

A child in a French Immersion Kindergarten can spell "Cooper" because her dog is important to her. This picture shows her dog Cooper coming for a visit to Kindergarten.

The child has written the first letter and/or key sound of each word in his sentence. (I got my picture taken.)

random way. However, children may demonstrate an understanding that language can be written down and that it moves from left to right and top to bottom on a page. There may be a mix of upper- and lower-case letters, and some of the symbols may be repeated many times. It is clear that children do not need to know all the letters and sounds before they begin to write.

Soon, children begin to grasp the idea that when writing in English, letters have sounds that represent the sounds in words, and they will use easy-to-hear and easy-to-write letters at first. Gradually, more of the consonant framework will be recorded along with some easy-to-hear vowels, and spaces between words will appear more consistently.

An individual child will use some words frequently, and these words become the child's own personal bank of high-frequency words. Examples of common words are *is*, *here*, *look*, and other words with important meanings, such as the child's name, *mom*, *dad*, and the name of a favourite pet. When children have a passion for a topic, they can become very interested in writing some words connected to their passion, such as *hockey*, *shark*, and *birthday*. There may be some overgeneralization of spelling patterns, but words will begin to look more and more conventional as the child becomes increasingly aware of words in print, once again an example of the reciprocal nature of writing and reading.

As children write, you will notice they will begin to monitor the production of their messages and their representation of words. This self-monitoring will often lead to a child making a change in what he or she has written. Sharing what has been written with an adult, another child, a parent, a small group, or perhaps even the entire class is a wonderful way to validate a child's efforts. The child may seek input from others and look for suggestions for improvement, or may just want to celebrate the accomplishment. Self-composed messages that link to day-to-day activities and classroom conversation have high emotional value, compared to dictated tasks or messages drawn from the teacher's mind. The goal is to have the child wanting to write again and to write more tomorrow. Children will engage in learning how to do something, do it better, do it faster, link it up to something, and prepare for future independent use. Writing involves thinking, problem

solving, and communicating, which are much more complex than just learning about sounds and letters.

Your Role as Teacher

Some teachers wonder whether we need to teach "proper" letter formation as part of children's growth as writers. While the English language arts curriculum does include learning outcome 4.2.3 *Enhance Legibility*, the Kindergarten curriculum does not emphasize teaching for correct letter formations, but rather having children learn to represent their ideas in a variety of ways.

As an observant teacher, you will be able to create many opportunities to explore writing with children and guide them through learning experiences that foster individual growth. When you encourage conversation about writing, children will engage in ways that foster their unique interests, individual competencies, and sense of self-confidence. Many teachers recommend "sharing the pen." They refer to the strategy known as *interactive writing*, which lets teachers and children work together to create a meaningful group text and to develop group ownership through their dialogue with teachers and each other. Some children may require you to model how to write an individual letter, while others can independently write a letter for each sound they hear in words. Some may contribute complete words, or read the completed text aloud. Your informal assessment of where children are at in their writing is based on your observations. You can then make informed decisions about how to differentiate your instruction in a developmentally appropriate way, based on your knowledge of child development, the needs and strengths of individuals and your group, and what is most meaningful and relevant to them (Hall).

Teachers, however, do have a role in stressing letter formation:

> There are two things which have been considered important in early reading and writing that could become neglected in [a classroom that fosters the creative urge of the child to write down his or her own ideas]. Teachers have often found it necessary to guide children manually and verbally in forming letters, calling for an approved sequence for starting and forming letters. This motor activity is sometimes seen by teachers as necessary for emphasizing the distinctiveness of somewhat similar letters such as *m* and *n*. If this is important, and it certainly is for a few children, then it might be overlooked in a creative writing program. But this need not be so. (Clay, *Observing Young Readers* 208)

In meaningful context (such as someone else needing to read the student's work), you can talk together about letter formation and give many opportunities for the children to write. Clear demonstrations with some simple coaching language that explains your approach will help most children succeed. Spending energy on completing commercial worksheets is often a waste of time and money. Children need a model and a little guided instruction and then time to practise on their own. As you write, be mindful of your own role as model during your shared and guided writing. Describe your own efforts at writing (down, down, across) and informally share the tips children will absorb seamlessly. (See Appendix B: Language Prompts for Movement Patterns to Form Letters).

Honour children's individuality by differentiating your instruction and keep your focus on an active, holistic, and play-based approach to learning, with many authentic and personally relevant reasons to write in all areas of your classroom. Ensure there are tools for writing at your block centre, at the dramatic play centre, near the sand table, and even outdoors. These playful opportunities help reinforce children's image of themselves as writers. For those children whose fine motor skills are still developing, more worksheets will only frustrate and not really help. Instead, encourage the refinement of coordinated motor skills needed to grasp a pencil or crayon through playful intentional experiences that involve the hand muscles, such as beading, turning nuts onto bolts, picking up small pompoms with tweezers, placing coins into a piggybank, lacing cards, and so on.

When children can freely write down their own messages and stories on paper, without being required to spell correctly or have neat handwriting, they gain a better understanding of the real purpose of writing (Sulzby).

Growing Mathematicians in Kindergarten

Some teachers may think that children begin school with no prior knowledge about mathematics. However, research confirms that at school entry, children have already developed an intuitive sense of numeracy and basic concepts of arithmetic, such as adding and subtracting, gained through their real-life experiences with quantities, patterns, shapes, and relationships. For example, while a child entering Kindergarten may not yet formally represent knowledge as 1 + 1 = 2, the child will understand that one dolly placed beside another in the play centre crib means she or he now has two. As an intentional teacher, you will take a developmentally appropriate approach to supporting children's numeracy learning, understanding that learning about mathematics is an active and constructive process. You will also understand that "since all children will demonstrate a developmental progression in the understanding of foundational mathematical concepts, teachers need to assess the level of development of each child, plan activities that are appropriate for that child, and decide when and how to intervene if the child has difficulties solving a problem" (Ontario Ministry of Education, *The Full-Day Early Learning–Kindergarten Program* 21).

When children begin Kindergarten, they may have a basic understanding of numbers. Children may be able to rote count to at least 10 or 20 and may understand one-to-one correspondence. Of course, there will be variation in the range of children's numeracy skills, especially early in the school year. These are neither gender based nor the result of low socio-economic status (Copley 8). Rather, they are typically the result of the kinds of prior opportunities children have had to think about, talk about, and play with numbers at their child care centres and with their families. Those who had more chances to engage in numeracy activities when they were younger are more prepared to face numeracy activities now that they are in school (Canadian Child Care Federation, and Canadian Language and Literacy Research Network 6).

Children collaboratively build a tall tower out of Unifix cubes.

From age five to seven, many children demonstrate rational counting. They may know that counting means assigning one number word to each object (one-two-three . . .), showing they understand one-to-one correspondence. They know that the final count number indicates the number of objects in a set (cardinality). From approximately age five to eight, children demonstrate strategic counting when they count on from a given number. Counting back may be more challenging for young learners, and they may need many opportunities to practise counting back from different numbers. Strategic counting will later help children to develop addition and subtraction concepts (Manitoba Education and Advanced Learning, *Kindergarten Mathematics* 4).

Your Role as Teacher

Children learn best when developmentally appropriate learning experiences are connected and integrated in a holistic way. As children engage in play, they have the perfect context within which to explore and manipulate mathematical ideas. As you plan learning experiences for your students, think about what you already know about their development across all the domains, because the most successful learning experiences are those based on your understanding of each child. Offer learning experiences that are squarely positioned within children's respective zones of proximal development. Remember that young children are constructing their "mathematical understanding in different ways, at different times, and with different materials. [Your] . . . job is to provide an environment in which all children can learn mathematics" (Copley 9).

You can provide many opportunities for Kindergarten children to engage with early numeracy concepts. As they explore open-ended materials such as blocks, sand, water, and clay, they are learning about volume, mass, spatial relations, and more. As they count and sort loose parts such as buttons, beads, and coins, they learn more about classification and enumeration. Through their "active participation in mathematics investigation, including problem solving and discussions, children develop their ability to use mathematics as a way of making sense of their daily experiences" (Prince Edward Island Department of Education and Early Childhood Development 90). While children explore and discover, you are introducing and extending

mathematics vocabulary and creating developmentally appropriate play opportunities for children to play with and practise their mathematical learning.

Reflection: Building on Children's Experience and Knowledge

How do you build on children's experience and knowledge, including their family, linguistic, cultural, and community backgrounds, their individual approaches to learning, and their informal knowledge?

Summary

Chapter 3 provided an overview of important theories and approaches to guide developmentally appropriate teachers, with a special focus on how young children develop literacy, numeracy, and identity concepts. You will read more about these ideas in subsequent chapters, beginning with Chapter 4.

Continue Your Learning

For more information about the development of children's language, see:

Manitoba Education, Citizenship and Youth. *Listening and Speaking: First Steps into Literacy: A Support Document for Kindergarten Teachers and Speech-Language Pathologists.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2008. Available online at <www.edu.gov.mb.ca/k12/cur/ela/list_speak/> (1 Dec. 2014).

For more information about the Early Years EAL Acquisition Continuum, see:

Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft*. Winnipeg, MB: Manitoba Education, 2011. Section 4a. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

For more information about the development of mathematics, see:

Manitoba Education and Advanced Learning. *Kindergarten Mathematics: Support Document for Teachers.* Winnipeg, MB: Manitoba Education and Advanced Learning, 2014. Available online at <www.edu.gov.mb.ca/k12/cur/math/k_support/index.html> (11 Dec. 2014).

For more information about early childhood education, see:

Reconceptualizing Early Childhood Education. Home Page. <www.receinternational.org/index.html> (3 Oct. 2014).

For more information about developmentally appropriate practices, see:

Phillips, Eva C., and Amy Scrinzi. *Basics of Developmentally Appropriate Practice: An Introduction for Teachers of Kindergarten*. Washington, DC: National Association for the Education of Young Children, 2013.

For more information about intentionality, see:

Epstein, Ann S. *The Intentional Teacher: Choosing the Best Strategies for Young Children's Learning.* Rev. ed. Washington, DC: National Association for the Education of Young Children, 2014.

For more information about brain research, see:

Center on the Developing Child at Harvard University. Home Page. <http://developingchild.harvard.edu/> (16 Dec. 2014).

Chapter 4:

Teaching and Learning Strategies

Chapter 4: Teaching and Learning Strategies

Guiding Principle: The Teacher

Kindergarten teachers are passionate about the opportunity to teach and learn with our youngest students and intentionally create joyful, nurturing, and engaging learning environments that welcome all children.

Kindergarten teachers develop secure, respectful relationships with children and their families and work in a collegial manner with other Early Years teachers in the school system and in the larger early childhood development (ECD) community. They are familiar with the Kindergarten curriculum and make thoughtful, informed judgments about how to maximize the many opportunities to build linkages among subject areas and to respond to the individual interests, abilities, and needs of each child in their classrooms. Kindergarten teachers enhance and extend children's play through their interactions and provocations.

Teachers are comfortable with human diversity and are cognizant of the many ways through which children communicate and represent who they are. Teachers are aware of their own biases, remain open to new ideas, and are willing to learn from the experiences and suggestions of others, including parents and guardians. They are committed to lifelong learning and growing as professionals and ensure that their educational programming is based on current knowledge and research about child development and early childhood education.

Intentionality

Intentionality, as referred to in the *CMEC Statement on Play-Based Learning* (Council of Ministers of Education, Canada), is a hallmark of developmentally appropriate teaching. It determines many of the decisions of Early Years teachers, including how they set up their classrooms, plan curriculum implementation, select from various teaching strategies, and assess the progress or challenges faced by children in the class, and it influences the tone of their interactions with children and their families.

Ann Epstein (2007) states:

> An "intentional" teacher aims at clearly defined learning objectives for children, employs instructional strategies likely to help children achieve the objectives, and continually assesses progress and adjusts the strategies based on that assessment. The teacher who can explain just *why* she is doing what she is doing is acting intentionally—whether she is using a strategy tentatively for the first time or automatically from long practice, as part of an elaborate set up or spontaneously in a teachable moment. (4)

As an intentional teacher, how do you individualize your teaching approach? You begin with the "why," and engage in a continuous cycle of observing, reflecting, and revisiting what you think you know about each child's play and his or her interactions with the social and physical environments (see Figure 4.1). This approach allows you to appreciate each child's interests, abilities, and developmental progress more fully.

Figure 4.1:
The Intentional Teaching Cycle

Be intentional about the way you work toward addressing Manitoba's Kindergarten curriculum outcomes as you plan learning experiences and purposefully use the daily routines. Keep up to date with current and evidence-based research about early child development. As you observe, reflect, and plan, you are following children's leads, as well as leading through your teaching.

Key Dimensions of the Role of Early Years Teachers*

The National Association for the Education of Young Children (NAEYC) uses a five-pointed mariner's star to represent the five key dimensions of the Early Years teacher's role (Phillips and Scrinzi):

1. **Creating a caring community of learners:** Create a community in which each child feels safe and welcome, including children with exceptional learning needs. Your schedule, routines, classroom design, and teaching approach are all tools to help create the caring community. (See Chapter 5.)

2. **Teaching to enhance development and learning:** Use evidence-based teaching strategies and select the strategy that fits best for a particular child in a particular situation. Scaffold children's learning (described in more detail later in this chapter). Differentiate instruction by using various learning formats, such as large and small groups, learning centres, and routines. (See Chapter 5.)

3. **Planning curriculum to achieve important goals:** Ask several critical questions before planning your approach to addressing the curriculum:
   - What should children know at Kindergarten completion?
   - What do the children already know?
   - Which specific learning outcomes (from Manitoba's Kindergarten curriculum) are you trying to address?
   - What types of adaptations do you need to make?

   Manitoba's Kindergarten curriculum is based on key *big ideas*, and recommends an integrated approach to make them meaningful to children. (See Chapter 7.)

4. **Assessing children's development and learning:** Use assessment to monitor children's learning and development, guide your teaching response, allow for early identification and intervention as needed, and facilitate your communication with others (McAfee, Leong, and Bodrova, as cited in Phillips and Scrinzi 60–61). (You will read more about assessment later in this chapter.)

5. **Establishing reciprocal relationships with families:** Ask parents about their hopes and dreams for their children and their knowledge of how their children learn best. Where possible, involve families in decisions being made about their children. (See Chapter 10.)

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* Source of the five categories: NAEYC. 2014. "5 Guidelines for Effective Teaching." *Developmentally Appropriate Practice (DAP)*. Washington, DC: Author: <www.naeyc.org/dap/5-guidelines-for-effective-teaching>. Copyright © 2014 NAEYC®. Reprinted with permission.

Developmentally Appropriate Teaching Strategies

Teaching Approaches in EAL Development

For a description of appropriate teaching approaches to match each of the three stages of EAL development, refer to the Characteristics of Early Years Learners chart in Section 1 (page 46) of *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming* (Manitoba Education).

Using the five-pointed star as your compass, consider the following 10 developmentally appropriate (DAP) teaching strategies (recommended by NAEYC) and intentionally select a strategy that fits your specific learning goals for individual children and for the classroom context. These strategies are not subject-specific, but rather are recommended practice for all teachers working with all age groups in any subject area or setting and reflect the fundamental beliefs and values about children emphasized throughout this document.

Effective DAP Teaching Strategies*

1. **Acknowledge:** Since all children appreciate positive attention from adults, acknowledge their personhood through regular observations and by paying attention to what they say and do. Let them know you notice through your active presence. Sometimes, the best strategy is to keep a child company, sitting close, being mindful, and caring.

2. **Encourage:** Attend to children's efforts, and encourage their perseverance and resilience. Your encouragement will help children stay on track even when the work is hard. Be cautious about value-based praise (e.g., "I like the way you are cleaning up.").

3. **Give specific feedback:** Specific feedback is more useful than a general comment such as "You are doing a good job." You might give children specific feedback such as "That's great! You touched each block only once to count them." or "You really made our guest feel welcome by finding her a chair." Many children will benefit from the time you take to clarify your expectations prior to a new experience (e.g., a field trip, the arrival of a guest to the classroom, a fire drill).

4. **Model:** Remember that you are a powerful role model in the lives of young children, so your own attitudes, the way you approach learning and problem solving, and how you treat others lead children toward vicarious learning.

5. **Demonstrate:** At times, you may need to demonstrate how to carry out a particular procedure if it should be done in a specific way. Think about this as a "show and tell" opportunity. You may show children a procedure several times,

* Source: NAEYC. 2014. "10 Effective DAP Teaching Strategies." *Developmentally Appropriate Practice (DAP).* Washington, DC: Author: <www.naeyc.org/dap/10-effective-dap-teaching-strategies>. Copyright © 2014 NAEYC®. Reprinted with permission.

and then carry it out together several more times, before they are ready to do it on their own—a gradual release of responsibility.

6. **Create or add challenge:** In the spirit of the zone of proximal development, be ready to scaffold by creating or adding challenge for children, gently nudging them to go a little further than where they are right now.
7. **Ask questions:** Your thoughtful questions can provoke children's deeper thinking (e.g., "Why do you think that happened?" "What do you think will happen next?").
8. **Give assistance:** As required, differentiate by reducing challenge slightly, or assist children with cues or hints to help them work on the edge of their current competence.
9. **Provide information:** Inform children of relevant information (e.g., facts or labels) that might deepen their learning or support their success.
10. **Give directions:** Give directions for children's action or behaviour, especially in new situations, so that your expectations are clear.

These 10 teaching strategies build upon our knowledge base about child development, reflect our defining roles as teachers of young children, and exemplify our vision of ourselves as intentional teachers.

A teacher demonstrates letter formation during a small-group time, creating or adding challenge or giving assistance as needed by individual children.

Scaffolding

Scaffolding is a term that is much in vogue in schools influenced by the work of child development theorists such as Lev Vygotsky and Jerome Bruner. It is epitomized in the schools of Reggio Emilia, where teachers ask many questions, summarize, clarify what they see children doing and saying, and encourage children's predictions to guide the way they learn through exploring, representing, and thinking deeply. Teachers provide scaffolding to help students develop higher-level critical and creative thinking and deeper understanding. As they support their learners, teachers believe that all students want to learn, and they provide a learning environment in which all students can gradually take on responsibility for their own learning (Manitoba Education and Youth, *Independent Together* 2.7–2.8).

Scaffolding requires a foundation based on a deep understanding of developmentally appropriate practice and of the curriculum outcomes. Your knowledge about young children's typical and unique developmental trajectories ensures that your expectations about children's competencies are realistic. Recognizing and building upon children's strengths allows you to provide better support for any areas of need. Keep your focus on the zone of proximal development (ZPD), and remember that this will be different for each child in your Kindergarten class.

When tasks are too difficult, children become frustrated and may give up not only on the task, but also on the idea of themselves as learners. This is when you may need to give some individualized assistance. When tasks are too simple, children become easily bored, and for some children, boredom leads to misbehaviours. You can then create or add challenge for those children who are ready for it by differentiating instruction.

The "sweet spot" in the ZPD (see Figure 4.2) may be a little different for each child, but your intentional teaching helps you to determine the ZPD that is just slightly ahead of where each child is at currently. With your support, and that of other children in the class who are a little more knowledgeable about the task at hand, you help children to feel successful, and learning occurs. This is the optimal zone for learning. You will likely find there are fewer classroom-management challenges because children are engaged in learning and are not feeling frustrated or bored. (You can read more about guiding children's behaviour at the end of this chapter.)

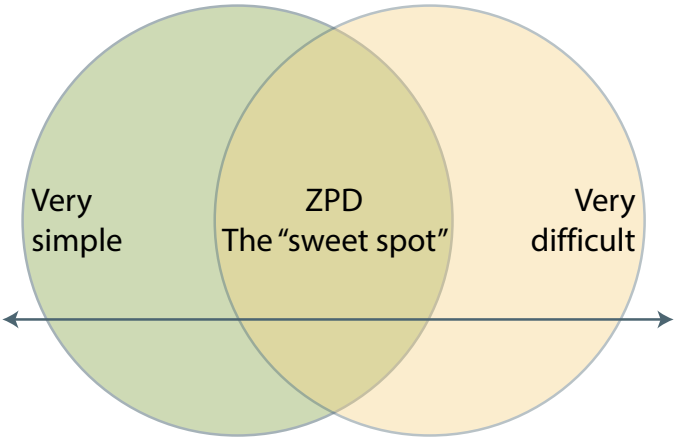


Figure 4.2:
The Zone of Proximal Development (ZPD)

Other scaffolding strategies include *peer-to-peer supports* (a more knowledgeable or experienced child can show or demonstrate a task to another) and *corrective feedback* (such as showing a child struggling with balancing how you learned to balance on one foot by holding onto your ears). Scaffolding is a wonderfully inclusive tool for working with all children in your classroom.

To determine what kind of scaffolding is required, begin with what you know about the learners in your classroom. Through your sensitive observations and authentic assessments, you grow to appreciate children's strengths, interests, and abilities. Consider how to scaffold in ways that engage and encourage children by adjusting your learning environment and your approach to curriculum in order to be both developmentally appropriate and flexible. Think about what kinds of supports and connections will be most helpful as you then move within a child's learning continuum (not too easy, not too hard).

Children and their teacher created a chart of 100 stickers to demonstrate how many is 100.

For example, in one classroom where the 100th day of school was being celebrated, some children asked: "What does 100 look like?" The Kindergarten teacher knew that most of the children could easily count to 10. Together, they created a large chart, which was initially placed on the floor. Children were invited to draw circles, until they had 10 circles of somewhat different sizes. Next, children counted out 10 stickers, and placed them into one of the circles on the mural. At the end of this learning experience, they had a visual representation of 100. While counting to 100 might have been too difficult for most children, by scaffolding on what they already knew, the teacher provided the support that enabled all the children to experience success!

As you support children in their inquiries, you can scaffold your instructions to help them *solve problems* through the following steps (French, Conezio, and Boynton, as cited in Butera et al. 73–74):

A teacher models writing and self-editing prior to the class's shared writing time.

- **Reflect and ask:** As you present three whole fruits (e.g., apple, banana, and orange), ask questions: What do you notice about the fruit? What do you know already?
- **Plan and predict:** What will we need to do to find out more about the fruit (e.g., peel, cut, remove seeds)? What do you think each fruit will taste like? Which will be the most popular in the class? You can chart the children's answers using a bar graph.
- **Act and observe:** Allow the children to taste all the fruits and have them talk about the flavours and textures.
- **Report and reflect:** You can chart the children's favourite fruits and facilitate a discussion about whether their predictions were accurate and what they learned.

Modelling and Demonstrating (Show and Tell)

You know that children watch you carefully and learn from your example, so show them some of the ways you enjoy using learning materials, and talk about why (show and tell). You may show a child how to use a new piece of equipment, such as an egg beater at the water table or a wrench at the carpentry centre. One teacher begins shared writing time each day with a short personal story that she scribes and illustrates on the chart. Her comfortable demonstration of how to edit her own work with the children models the whole-part-whole approach, and translates to the children's growing comfort in writing down their own ideas and then in self-editing.

Mediators

Use mediators as response prompters to remind children how to carry out a task. *Mediators* may be physical objects, photographs, charts, and familiar actions/signals that help children to focus or to recall the steps for a task, such as washing hands. Props used during circle time may help draw and hold children's attention, so try using a funny hat, a puppet, or a magic wand to engage inattentive children.

In one classroom where children were having a hard time remembering to read books carefully, the teacher offered indirect guidance by spreading a colourful tablecloth on the floor. Children sat cross-legged around the periphery of the tablecloth as the teacher placed books on it. The visual cue offered via the tablecloth was enough to help children self-regulate as they looked at books and turned their pages carefully. In another classroom where several children had speech delays, the teacher made the shape of a sound as it is articulated to remind children of how it is formed—for example, she demonstrated how *S* is voiced as "sssssssssssssss" as she made the shape of a snake with her finger held near her mouth. Eventually, these types of mediators can be faded out.

Provocation

A *provocation* is a learning experience intentionally organized by the teacher to invite children's curiosity and desire to explore and problem solve, often in an extended way, and typically with peers in small groups where cooperation and co-construction of knowledge can be facilitated. The provocation "is a portal inviting you to enter."

Provocation can be changes made to the environment, such as new materials added to a learning centre, but it can also be

> an idea or question or action that carries the children more deeply into the subject. Provocation can move the children to a place where they see that there is more to be explored, depth they hadn't seen at first. With the right provocative language we convey them to the vicinity where the depth is, so they can explore and respond more profoundly. New languages, materials and surprises provoke new thinking. (Clemens, Gleim, and Handler 9)

Provocations

As a *provocateur* of children's learning, you have many ways to encourage them to go a little further in their thinking. You may intentionally place provocations into the classroom to invite and involve children in a learning experience. Through the intentional questions you pose, you invite children to think deeper. (See Figure 7.1 in Chapter 7 for questions that emerge from the learning landscapes.) You may coach by offering gentle clues to some children, such as "What would happen if you turned the puzzle piece this way? Would that make a difference?" During your morning class meeting, you may make the beginning sound of an important word that responds to your question, and then pause to see whether anyone responds to your cue.

As you engage with children during choice time, be aware of your role as a demonstrator, modeller, and co-player to scaffold children's learning in play centres without taking over their activity, and help them to grow toward increasingly complex and sustained interactions and situations (New Jersey Department of Education 14). If you notice that play is stalling, you can gently nudge it back on track by adding some new materials, suggesting a role for a child who is looking on but not participating, or clarifying how someone might be feeling. You might mentor the play that is underway by joining in the scenario (e.g., as a pizza delivery person bringing food for hungry children or a courier delivering an important letter). You might add to the children's conversation, modelling language and new vocabulary.

You can ask more questions or offer more information for those who are ready for further extensions. Consider comments and questions such as the following (Weitzman; Manitoba Early Learning and Child Care):*

- **Extend knowledge:** "That red flower is called an amaryllis."
- **Build vocabulary:** "Your tower looks like a skyscraper."
- **Build creative thinking:** "I wonder what we could use to make a roof for our fort."
- **Predict:** "What will happen next?"
- **Make decisions:** "What do you think . . . ?"
- **Evaluate:** "Which story is your favourite? Why?"
- **Imagine:** "What do you think would happen if . . . ?"
- **Transform:** "How could we make bannock from all these ingredients?"
- **Reason:** "How did you decide on your plan? What will you do first?"
- **Compare:** "Which pile of buttons has more?"
- **Give information:** "She is crying because she fell down and hurt her leg."

* Source: Manitoba Early Learning and Child Care. *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Preschool Centres and Nursery Schools*. Winnipeg, MB: Manitoba Early Learning and Child Care, June 2011. 12. Available online at <www.edu.gov.mb.ca/fs/childcare/early_returns.html/> (19 Sept. 2014). Used with permission.

Observing and Documenting Children's Learning

"Observation has always been the main method of assessing learning in the Kindergarten classroom. Educators continually and purposefully observe their children as they go about their daily routines and learning experiences—as they enter the classroom, participate in whole-class circle time, make their choices and group for learning centres . . . , eat their snacks, engage in purposeful play, prepare to leave, and so on" (Manitoba Education, Citizenship and Youth, *Listening and Speaking* 23).

In many ways, Kindergarten lays the foundation for the continuing development of children's competencies. To plan optimal learning experiences, you need to know about each child within the classroom, so the way you appraise development is crucial. *Early identification* is an important tool in your toolbox and can be critical to a child's successful introduction to school. The early identification process, consisting of screening, assessing, programming, and evaluating, is the same for all children. It is a way to provide continuity in programming based on children's developmental needs. As variability in children's development intensifies,

further resources and increased collaboration among parents, teachers, and resource and support personnel are necessary to ensure each child's success during the Early Years in school.

Observation by the classroom teacher in natural settings best aids in setting educational objectives for children experiencing learning difficulties. Observation is more appropriate for young children than standardized testing, which has severe limitations for a variety of reasons, including teachers' own lack of experience or expertise in the use and interpretation of the tests, test anxiety on the part of children, and the cultural inappropriateness or bias inherent in many tests. Young children are usually unperturbed by being observed in their natural setting, and observers can be trained to perform their task unobtrusively using either formal or informal techniques. Observers may interact with children or watch as spectators. Observing children and recording observations is already part of your daily Kindergarten routine. You will need to organize your classroom in such a way that you are free to observe.

Intentionally schedule your time for ongoing observation, assessment, and record keeping related to children's growth and development. Intentional observation is not random; instead, it is linked to specific behaviours for authentic assessment—assessment *for* instruction, *as* instruction, and *of* instruction. With young children, informal observation is the primary assessment method. At this stage, however, the rate of children's growth is too varied to allow the setting of specific learning outcomes that all children must be able to reach, without seriously limiting expectations for the older or rapidly maturing child or frustrating the younger or less mature child. Once goals and standards are stated and formalized, take care not to confine yourself to attempting to reach these goals. Just because five-year-olds are willing to conform and are interested in trying to please adults, does not mean it is appropriate to pressure them into any intense training in order to reach predetermined learning outcomes by an evaluation-specific date, such as for the fall report card. At the same time, gifted children may become bored with educational programming that offers little challenge once a predetermined learning outcome has been reached.

Observation of EAL Children

Collect as much information from parents as you can about a child's interests, immigration experiences, home languages, adjustment issues, and so on. Using an interpreter to collect this type of information and to build and develop positive connections with the parents would be beneficial.

Observable behaviours of EAL students could include

- pre-literacy behaviours in both the child's home language and in English
- listening and speaking behaviours in both languages (e.g., Is the child able to request/negate, retell simple stories, ask questions?)
- literacy behaviours using text in both languages (e.g., Is the child able to choose books, read simple sentences, write his or her name or the names of others?)

Use naturally occurring times during the day to observe and assess. While children are engaged in play activities of their own choosing, use this time to circulate. Spend time with individual children or with small groups, noting children's interests and skill development, and making the most of play and your conversations to learn about the children in your classroom. Reflect on which specific learning outcomes you see being met and note these carefully.

The primary purpose of recording observations is to select appropriate interventions or to implement educational programming based on the child's developmental and learning needs. Consequently, comprehensive observations include assessment of all growth, development, and learning. In effect, observation informs assessment. Consider all the information you have been able to gather from your careful observations and record keeping, as well as from your consultations with resource personnel, and with families, who know their children best.

A child's behaviour may be observed by parents, teachers, and resource and support personnel in a variety of settings:

- with adults
- with another child
- during language use
- during routines and transitions
- during the use of materials
- during teacher-directed learning activities
- during child-directed activities

Observations of a child may be recorded in a variety of forms:

- **Developmental history from birth to the present**
  - specific health information
  - vision and hearing screening
  - gross motor screening
  - interests, hobbies, and activities of the child
  - information shared by early childhood educators who have worked with children in preschool settings (with informed parental consent)
- **Forms for recording classroom observations**
  - digital photographs
  - video or sound recordings
  - collections of children's work
  - anecdotal records, diaries, and logs
  - activity lists
  - learning centre records

- time or event sampling (which allow you to track a child's behaviour during a particular time of day, such as drop-off time, or during regularly occurring events, such as daily free play, when you may note which play centres a child chooses to visit)
- checklists and rating scales
- structured tasks
- questionnaires
- criteria-referenced tasks

- **Interviews to share information**
  - with parents
  - with other school personnel
  - with the child
  - with early childhood educators (with informed parental consent)

Improving Your Observational Skills

Observation is a skill that has to be learned and practised. As part of your pre-service teacher training, you probably had help in learning how to observe; however, we all benefit from regular practice in recognizing and interpreting behaviour and withholding judgment until all the information has been gathered. Skilled observers regularly reflect on their own personal biases and are honest about the type of behaviour that pleases or irritates them. They ask themselves whether they have been conditioned to think of academic and verbal learning as the most worthwhile learning. As observers, we need to keep in mind that "no two people will see the same child in identical ways. Two open and honest teachers can be asked to observe the same child. What they see and the interpretation they make will depend on what they decide to look for and on their own particular perspectives" (Martin 23).

The behaviour of young children is often spontaneous, impulsive, and emotionally spurred. Their logic is different from that of adults, but it is right for them and should be respected; the transition to adult logic usually occurs during adolescence. From the viewpoint of the adult, children's behaviour often appears changeable and unpredictable. It is, however, an honest expression of the children's feelings at the time.

Children also express their feelings and thoughts in a physical manner and often react totally in terms of their physical needs. (For example, young children who are hungry may be irritable or even aggressive. If you know that some children do not eat breakfast before school, you have a context to understand "negative" behaviours in the classroom better. You may choose to serve a morning snack early in the day to address children's hunger, or work with colleagues in your school to establish a breakfast program prior to the start of the school day.) Avoid judging behaviour in terms that imply that the child is unacceptable—while the specific behaviour may be inappropriate, the child is unconditionally accepted.

The processes by which a child copes with life's frustrations are important measures of self-regulation and emotional maturity. Some adults see younger children as helpless, and childhood as a time when children should be manipulated and controlled. These views must be set aside if parents and teachers want to see children become self-directed, self-motivated, and responsible for their actions.

You can record your observations in the classroom by jotting down quick notes on scraps of paper, sticky notes, or index cards. These quick notes are useful for recording information you do not want to forget (e.g., your observation that Cali counted 31 blocks while building with her friends). To avoid misplacing these notes, transfer them to a file folder or an envelope. Alternatively, try using a steno pad or a science notebook. Draw a line down the centre of the page and write down your observations (no inferences) in one column. Use the other column to note questions, interpretations, ideas for extending learning, links to theory, and reflections on the observation.

In addition to recording student observations on paper, try using video recorders, smart phones, tablets, or other digital media. Aim for recording short clips of about 10 to 60 seconds while children are reading, conversing, or sharing with friends. Not only do these clips provide permanent records, but they can also be used to improve the observational skills and teaching abilities of educators, parents, or resource personnel. Having two or more observers review the clips allows them to compare and discuss their observations and their interpretations. Teachers can function as spectators or participant observers. Each process yields a different kind of information.

Protecting Children's Privacy

Some teachers use various applications to store digital documentation about children. If you are using electronic storage for your recorded observations, review your school division's technology policies to be sure you are protecting children's privacy.

Regular, systematic observations and skill in using the resulting information are important tools for assessing, programming, and evaluating during Kindergarten and beyond. Observing individual children in your classroom focuses your attention on children as they learn and progress over time, and so your detailed observations also provide feedback on your own instruction. A simple observation notepad might include notes about learning strengths, areas of challenge you notice, next steps (ideas for extensions, scaffolding, and so on), and portfolio items (ideas of artifacts or photographs you plan to add). A blank template of an observation notepad is found in Appendix C: Kindergarten Play Observation Notepad.

Reflect on what you observe and use your observations to inform your teaching practices. Use your observations to individualize your approach with different children as needed, especially when children are in the delicate formative stage of new learning, such as beginning reading, writing, and mathematics (Clay, *An Observation Survey*, 2013, 4).

"As teachers begin to observe closely, they see children's development played out in their own unique classroom contexts, always influenced by the potentially overlapping cultures of home and school lives" (Henderson, Meier, Perry, and Stremmel 2).

Remember to give careful consideration to individual and cultural factors that may have an impact on what you observe and how you interpret your observations. Since young children are easily influenced by context, it is best to conduct multiple observations and to pay careful attention to any changes you note in a child's performance in different situations. A child may be very talkative during free playtime, but very shy to speak out in your circle time or during a more formal assessment. These observations can also help you to select which instructional supports and strategies will probably work best for the child. You may need to select an alternative assessment tool that is more open-ended. You may need to make adaptations or accommodations to make a task more interesting or culturally relevant for a child and in order to understand the child more accurately, especially one with an exceptional learning need or one who comes from an English as an additional language (EAL) family. Children often do things differently at home than in early childhood settings or other out-of-the-home settings.

A teacher notes her observations while children play.

Recording Observations of EAL Learners

Recording observations of the EAL child's use of language for learning and for interacting with others both in the child's first language and in English is beneficial for guiding you in determining specific instructional supports and for showing English language acquisition. Record observations of different kinds of talk children use, such as asking questions, getting things they need, expressing feelings, or solving problems. Note the EAL students' confidence levels and the strategies they use when communicating.

Tip: To determine observational targets, use the Early Years EAL Acquisition Continuum found in Section 4a of *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics and Language (LAL) Programming* (Manitoba Education).

Vignette: Sharing a Story through Song and Dance*

In one Kindergarten class, a young First Nations boy was asked to retell a story from his own experience or a story that someone had told him, but he answered that he did not know any stories. Instead of merely noting the child is "unable to retell a story" in her assessment records, his teacher reflected on what she knew about him, his family, and their community involvement. She knew he and his siblings were members of the school-sponsored powwow club. She knew that traditional dances retell stories with deep meaning and that the songs are reminders of Indigenous traditional ways and rich cultural heritage.

The teacher asked the boy's mother for help, wondering if there was a way to support this young boy in sharing his stories with her and the other children in his Kindergarten classroom. By collaborating with the boy's mother and the facilitators of the powwow club, the teacher arranged a class visit later that month from several members of the club, who brought their big drum. The class was thrilled to welcome the group. Proudly dressed in his regalia, the First Nations boy in the class sang, danced, and drummed his story, explaining to his peers that the drum connects us to the heartbeat of Mother Earth. He shared the meaning of the song and the story behind it. He certainly did have stories to tell, but needed to tell them in his own way. Reggio Emilia-inspired teachers would recognize dancing, drumming, and singing as some of the 100 languages of children. Intentional teachers look for ways to create authentic assessment opportunities.

* This vignette was inspired by a story shared by a Kindergarten teacher during a Manitoba Education and Advanced Learning workshop and by the following video:
Galileo Educational Network. "Sharing a Story through Song in Kindergarten." Online video clip. *Vimeo*. n.d. <http://vimeo.com/98450960> (7 July 2014).

Anecdotal Records

In Kindergarten, each child's learning strengths and next steps in learning can be highlighted across the developmental domains and in a variety of curricular areas. One of the easiest formats for recording observations is the *anecdotal record*, which captures a single incident with either a small group or an individual child after it has occurred. This format is often used to record a developmental or curricular outcome. Your anecdote will be most reliable if you make your record as soon as possible after an incident occurs. Keep your interpretation separate from your factual descriptions. What do you see? Remember to date your record (time, date, month, year) and locate it (e.g., Did you see the child spontaneously writing a sign while playing with the unit blocks or at the writing centre?). What do you hear? Use quotes where possible.

Anecdotal Observation (Sample)

Date/Place of Observation

October 30, 2013 (1:20 p.m.) at the dramatic play centre

Observation Notes

Belle was playing by herself with the dolls and their accessories at the dramatic play centre, quietly humming as she dressed the "babies." Fumiko approached her, hesitating at the edge of the play space, and looked at the dolls. Belle smiled and asked, "Do you want to play with me? You can be the grandma coming for a visit." Fumiko looked a little confused, but came closer and touched a doll's head with her hand. Belle handed her one doll, turning away slightly to pick up another doll, saying over her shoulder, "This baby needs to be changed."

Comments/Reflections/Interpretations

Belle shows evidence of pro-social behaviour in this incident.

Running Records

Another technique that many teachers commonly use is the *running record*, a descriptive sequence of children's activity (Martin 73). It can be used to record the behaviour of individuals or groups or specific events. (Please note that a running record of reading continuous text is a specialized form of record keeping that allows teachers to document the progress of individual children's reading skill development.)

This narrative form of observation is a systematic way to record what you actually observe. Leave inferences to your analysis of your observation, when you can reflect on what you saw, summarize, and plan accordingly.

An example of how a running record format may be used in mathematics follows. For a blank template, see Appendix D: A Running Record.

A Running Record of Mathematics Knowledge (Sample)*

Child's Name	VS
Observer	Ms ABC
Date of Observation	April 7, 2015
Time of Observation	10:30–10:50 a.m.
Location	At the art centre
Context	The children were invited to create their own page for a class counting book.

Time	Observation Notes	Comments/Reflections/ Interpretations
10:30	VS chooses plastic beads for her page in the counting book. Her page is 24. VS begins to take beads out of the bowl, counting 1 at a time, and places them on the piece of construction paper on which she will design her page. With one-to-one correspondence, VS counts from 1 to 16, repeats "16," says "17," and then hesitates. She then scoops up all the beads in her hand and begins to count them out again from 1. This time she gets to 24, but continues, "24, 25, 26." I stop her and direct her to the number card (24) on the piece of paper. "Oh yeah!" She immediately clears all beads off the page and begins to count from 1 again. This time she slows at 20 and slowly says, "21, 22, 23, 24. It's 24!" The 24 beads are in a long meandering row around the paper. Me: "Will it be easy for everyone to count your beads like that or is there another way you could put them on the page so they will be easier to count?" VS: "Straight rows." Me: "OK, you could try that. How many beads will you put in the rows?" VS: "10." Me: "Do you think they will all fit?" VS: "Yes, see." She rearranges the beads. She counts 10 beads into a straight row along the top of the paper. Then she begins another row underneath. She counts out 10. She notices 4 remaining beads and she looks at me. She seems unsure about what to do with the remaining beads.	VS ■ counts with one-to-one correspondence from 1 to 24 ■ builds set to match two-digit number ■ self-corrects when she senses an error in counting ■ shows perseverance ■ creates a pattern using objects (2 rows of 10) Emerging: VS is beginning to ■ subitize (determining the quantity of a small group of items without counting) ■ consider organized arrays ■ consider part-part-whole thinking (10 + 10 + 4 = 24) Follow-up notes: Watch VS and her emerging numeracy skills.
10:50	Me: "How can you make it so that you use all 24 beads, because your page is 24?" VS: "I'll put these beads here." She makes a little group of 4 beads in the corner of the paper under the 2 rows of 10. "There! 10 and 10 and 4!"	

Note: This is not a running record of reading continuous text, which is a specialized form of record keeping in reading.

* Used with permission of a Kindergarten teacher.

When you observe children in a variety of learning contexts over time, you learn about their strengths and any areas that need support and development. You can then use this knowledge to inform your planning and instruction. Observation ranges from noticing to keeping records of observations—that is, from passing or incidental observation to focused observation. You make numerous passing observations as you work with children throughout the day, but you may need to pause intentionally to practise your focused observations. These types of observations throughout the phases of learning (activating, acquiring, and applying knowledge) allow you to be flexible and fluid as you support children in their learning.

Of course, you are not observing all children at the same time, but are selecting children to observe over a period of time and in a variety of planned whole-class and small-group (interest, cooperative, and flexible groupings) learning contexts. Depending on children's needs, you may select some children more frequently than others for observation.

Figure 4.3 illustrates a cycle of instruction/observation and the transitions among a variety of groupings within the daily life of a Kindergarten classroom. This learning/teaching/assessment process may occur over months, over a week, over the course of a day, or even within minutes during the activity of the busy Kindergarten classroom.

Determine targets (learning outcomes and/or developmental domains) for instruction and focused observation based on the learning needs and inquiry of children in your class. Rather than using the targets as a checklist or a means of "covering" content, identify the appropriate targets that specific children will need in order to develop enduring understandings. This process facilitates an inquiry approach for both you and the children in your class. You will gain a deeper understanding of what each learner knows and can do in order to plan next steps, and children will explore, question, construct, discover, and infer meaning to deepen their understanding of their world and to pose new questions. Targets change from the beginning of the year, to the middle of the year, and to the end of the year, as the learners move toward achieving end-of-year learning outcomes.

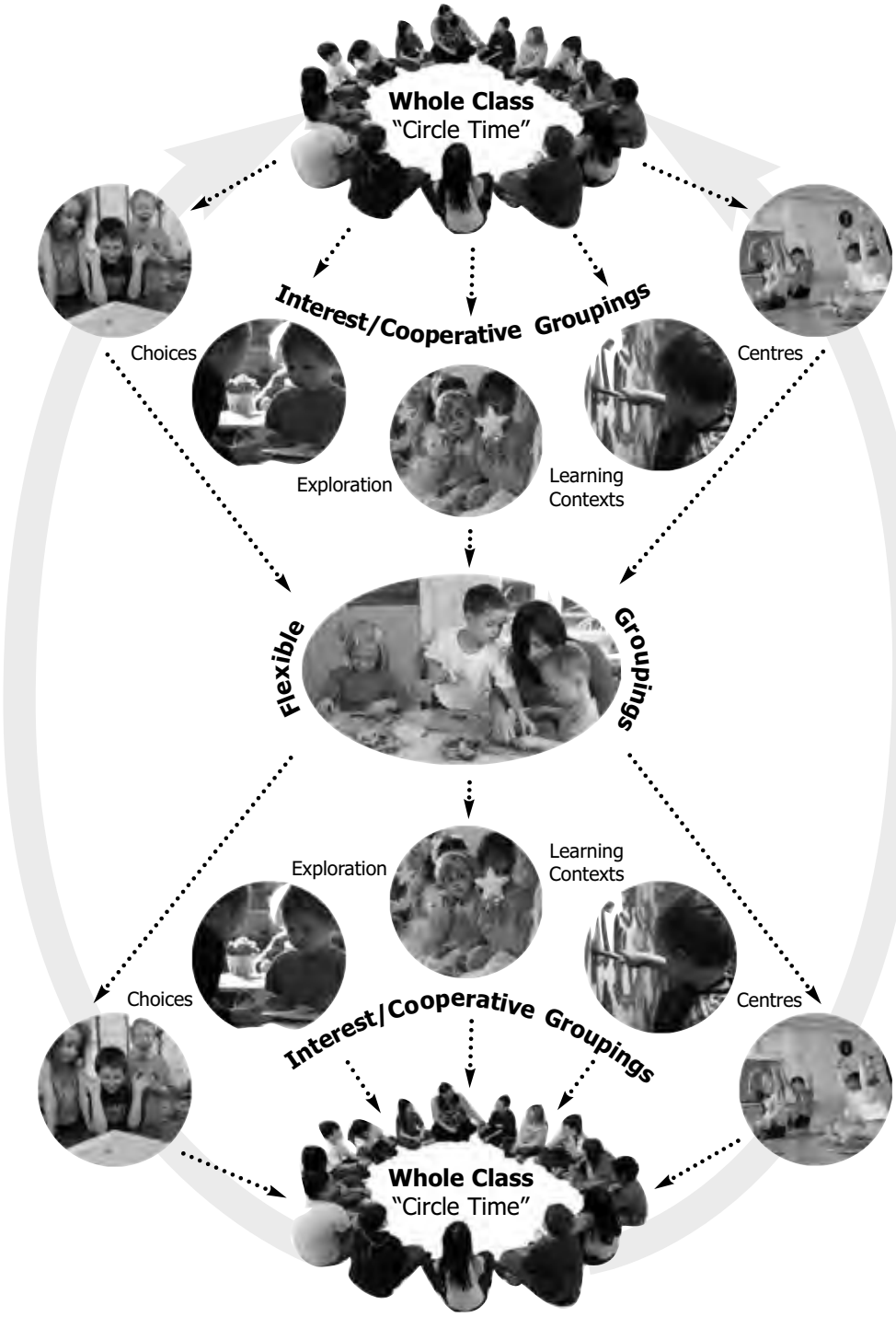


Figure 4.3:
An Environment for Classroom-Based Assessment*

* Source: Manitoba Education, Citizenship and Youth. *Listening and Speaking: First Steps into Literacy: A Support Document for Kindergarten Teachers and Speech-Language Pathologists.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2008. 24. Available online at <www.edu.gov.mb.ca/k12/cur/ela/list_speak/> (1 Dec. 2014).

Reflection: Your Observation

As you think about how and when you observe, consider the following:

- What was your purpose for your observation?
- What similarities or patterns do you notice?
- What do these observations seem to suggest?
- What else might be going on? Why did the child do it this way (and not in another way)?
- What else do you want to observe or find out?
- How does your observation fit with other things you know about the child from your previous observations?
- How will you document your interpretations?
- What is the relationship between your observations and the plans you create for learning in your classroom?

Planning for Learning

Kindergarten teachers make many types of plans for their children's learning. Some planning occurs daily. When a project idea emerges, teachers carry out short-term planning that will support the children's learning about that idea over an extended period of time. Teachers also carry out long-term planning. Later in this chapter, you can read more about individual education plans, often developed to meet the needs of specific children, and about how your assessment processes inform your planning. Chapters 5 and 6 will help you to plan how to organize your classroom, your play centres, and your schedule. Chapters 7 to 9 will help you to consider how you can plan to address specific learning outcomes identified in the Kindergarten curriculum.

Co-constructing Learning

"Teachers need to resist the mandates to standardize and dehumanize what takes place in the classroom. Spontaneous events that are pursued by bringing engaging materials, good conversation, and time for investigation into the classroom create a true learning environment that is a joyful place to be" (Pack 43).

One of the early voices for Kindergarten was John Dewey, who argued that children's most powerful learning originates in their genuine experiences (*The Child and the Curriculum* and *The School and Society*). The curricular approach described in this document is based on the perspective that emergent, child-centred instructional practices that offer optimal learning experiences for young students interested in their own inquiries are the practices that best meet children's thinking, learning, and developmental needs. The holistic notion of young children's integrated thinking is founded on a deep appreciation for the interconnected nature of the child's learning (Franklin, as cited in Recchia and Bentley). Many Manitoba Kindergarten teachers who are inspired by the Reggio Emilia approach share this concept (see Chapter 3). When you co-construct learning *with* children in your Kindergarten, you can make the most of their own interests and respond best to their needs. You can negotiate their thinking and good ideas into your planning.

Implementing an Integrated Inquiry Approach

Kindergarten teachers engage young learners successfully using an integrated inquiry approach to connect children to the Kindergarten curricula in a real-world way. (Chapter 8 provides snapshots of the Kindergarten curricula.) In addition, important Manitoba Education and Advanced Learning priorities are infused throughout the Kindergarten day across all subject areas and with all children. (Chapter 9 discusses the integratable elements of learning across the curriculum.)

Guiding Children on the Road to Literacy*

by Susan R. Marshall

As my students and I begin our journey
On the road to learning, I must remember
Not to walk behind them or I may be tempted
to push them along in their travels,
Not to walk in front of them or I may
pull them along like a tour guide,
But to walk beside them so that our
encounters may be shared, each of us
opening the eyes of the other with our
unique observations.

* Source: Marshall, Susan R. "Guiding Children on the Road to Literacy." *The Reading Teacher* 50.7 (1997): 575. Copyright © 1997 John Wiley and Sons, Inc. Reproduced with permission through Copyright Clearance Center.

So, how and where do teachers begin? Teachers make flexible plans, and stay ready to follow the children's lead. They build an inclusive classroom community. They see themselves as co-learners and share ideas with their group. They provide the required resources and allow enough time to support children's questions, discoveries, and meaning making. They allow children to express their understanding in many forms, including writing, drawing, building, sculpting, and acting. Finally, teachers document and reflect on the learning they see unfolding in their classrooms (Board 44).

Ways to Plan

Figure 4.4 illustrates Manitoba's subject area curricula revolving around playful learning, which in Kindergarten ought to be the central construct in planning for learning that teachers undertake.

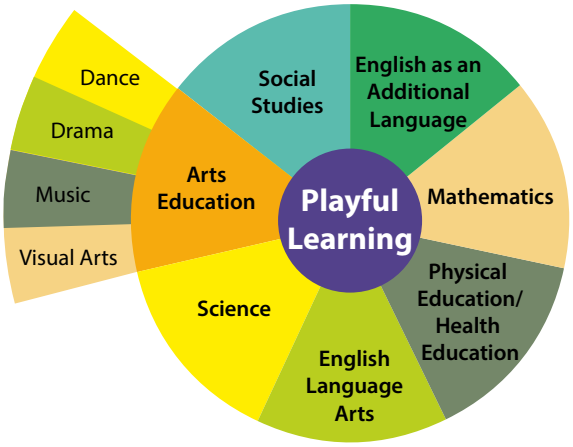


Figure 4.4:
All Subject Areas Revolve around Playful Learning

When planning for learning, do you emphasize academics or play? Some teachers struggle with the ideal of active, play-based learning, pointing to the perceived barriers posed by the standard curriculum in allowing for time and space for learning through play (Gabriel and Doiron 17). However, it is never an either/or choice!

Children's curiosities are emergent, and that means your approach to curriculum "is not linear—it is organic, constantly growing and evolving. Sometimes it is even circular, as we observe, discuss, and examine documentation, raise questions, and observe again" (Stacey, as quoted by Gabriel and Doiron 12).

Your beliefs and views about children, your pedagogical approach to learning, and the nature of relationships in your classroom all influence your planning and the approaches you offer to the children. Planning is anchored in your observation of children and their learning, the questions or interests of children, and the Kindergarten curricular outcomes. Questions to support inquiry may be negotiated with children; however, you continue to use your professional judgment to navigate between children's interests and curricular outcomes.

When you plan intentionally in this way, you

- preplan possible directions of learning according to curricula
- listen carefully and respectfully to negotiate children's ideas
- develop depth of understanding of curriculum and learners
- set up the classroom environment to provide invitations for learning to motivate exploring curricular outcomes (as discussed in Chapters 5 and 6)

Wood and Attfield (as cited in Martlew, Stephen, and Ellis 73) describe curriculum-generated play (what we term *backward design*) that supports the development of specific skills and knowledge, as well as play-generated curriculum (what we term *inquiry*) that emerges from teachers' responsiveness to children's own interests and questions. For a visual representation of these concepts, see Figure 4.5. Needless to say, child-centred planning is supported by your observations and documentation processes.

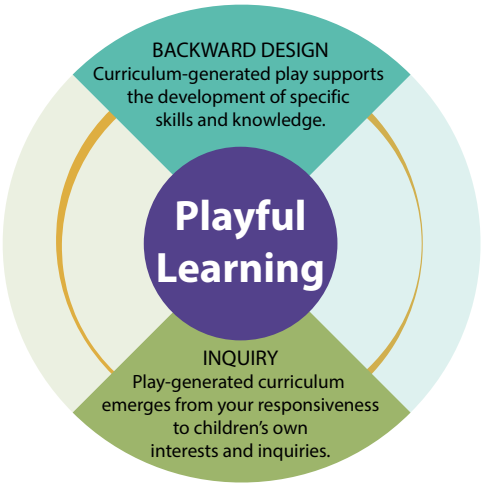


Figure 4.5:
A Playful Approach to Planning

Planning refers to long-range planning (year plan), unit/inquiry planning, and daily instructional decisions with respect to selection of materials, as well as to creating provocations or invitations for learning experiences and to rich learning contexts. Your plans for playful learning can move in at least two directions within your learning landscape: *inquiry planning* and *backward design curriculum planning*. These are two of the many processes teachers have found useful in planning for children's learning.

"Children are problem solvers and, through curiosity, generate questions and problems. Children attempt to solve problems presented to them and they also seek novel challenges. They persist because success and understanding are motivating in their own rights" (National Research Council 234).

Inquiry Planning

Inquiry planning and learning is not a step-by-step process, but rather a cyclical process, with its various phases being revisited and rethought as a result of children's discoveries, insights, and construction of new knowledge as they play and learn. Worthwhile inquiry questions are broad in scope and rich in possibilities.

The advantage of inquiry/project planning over theme-based planning is that it is far more responsive to the children's interests. It enables you to be more flexible and creative in your planning and your teaching. You may choose to deliver a "mini-lesson" to a whole group or create smaller groups to help address the children's needs as the inquiry unfolds and their questions are refined. Children are more motivated to add their suggestions and directions as a project grows and changes and as they see their ideas being incorporated. Many teachers plan for celebrations or other culminating events that bring closure to an extended inquiry for the children involved. These might include a party attended by families where documentation of the learning can be shared, models can be exhibited, performances can be enjoyed, a class book can be presented, and so on.

The inquiry-planning process is reflected in Figure 4.6. For a template to support your use of the inquiry-planning process, refer to Appendix E: Inquiry Planning.

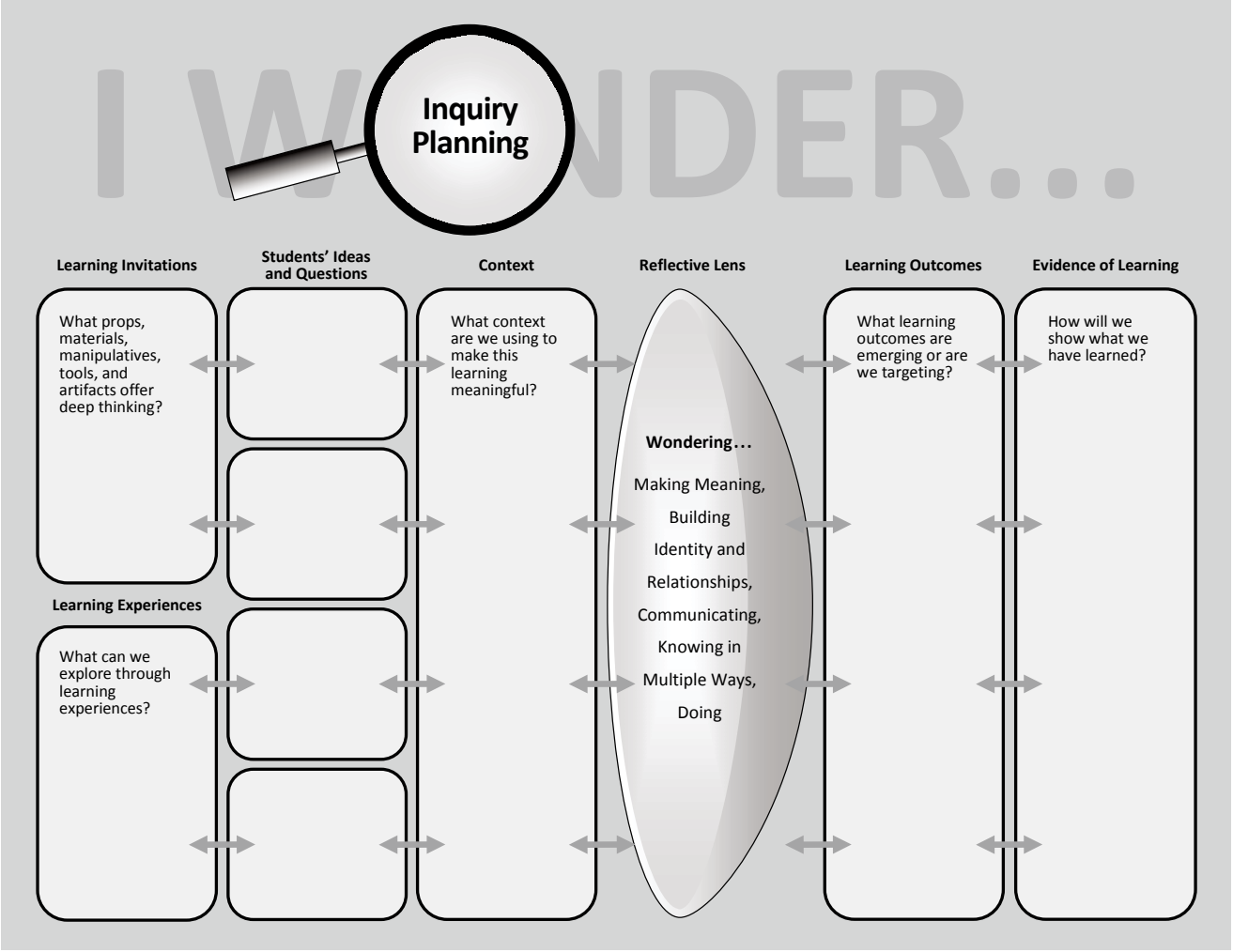


Figure 4.6: Inquiry Planning

Backward Design Curriculum Planning

Curriculum-generated planning, also referred to as backward design curriculum planning (based on the ideas of Wiggins and McTighe), is by its very nature inquiry based and student focused. The backward design process is like using a road map to plan the journey through the learning landscape to a desired destination. The questions in Figure 4.6 lead teachers and students to powerful instruction and learning in an inquiry approach, but are the same questions to consider in backward design. Backward design invites you to scaffold for the children in your class and attend to their needs through pre-assessment and formative assessment, daily feedback, and differentiated learning experiences. The planning process starts with knowing the desired destination and knowing how children will show you the evidence that they have arrived.

Backward design curriculum planning includes the following steps:

- **Beginning with the End in Mind**

  Examine the Kindergarten curriculum and the identified learning outcomes through a reflective lens to clarify deep questions and big ideas for focused learning. Consider what the children in your class will come to know and be able to do as a result of the learning process so that you can provide classroom experiences and invitations to engage them in higher-level thinking that will take them to deeper understandings through these important questions (which you will revisit in Chapter 7):

  - How do I perceive the world in multiple ways . . . ?
  - How do I make meaning . . . ?
  - How do I communicate my thinking, understanding, learning . . . ?
  - How do I build my identity and my relationships with others, with my community, with Earth . . . ?
  - What do I do with what I know . . . ?

  This process of carefully examining learning outcomes serves to illuminate bigger, long-term instructional goals, and helps you to articulate authentic assessment criteria that support learning for today and tomorrow.

- **Evidence of Learning**

  Assessment criteria are based on the breadth and depth of the learning outcomes, and children will demonstrate their learning in multiple ways. If you wish to consider externally prepared assessment criteria to assist you in your work, consult them only *after* curriculum-based criteria are determined.

- **Teaching and Learning Plan**

  The learning plan flows from the assessment criteria and provides a palette of learning activities to maximize initial and sustained engagement that considers the possible differences in children's strengths, interests, prior experiences, and location in the learning landscape.

- **Reflection**

  Reflection on learning is a key process for both students and the teacher to help further learning and inform next steps.

The backward design curriculum-planning process is reflected in Figure 4.7. For a template to support your use of this planning process, refer to Appendix F: Backward Design Curriculum Planning.

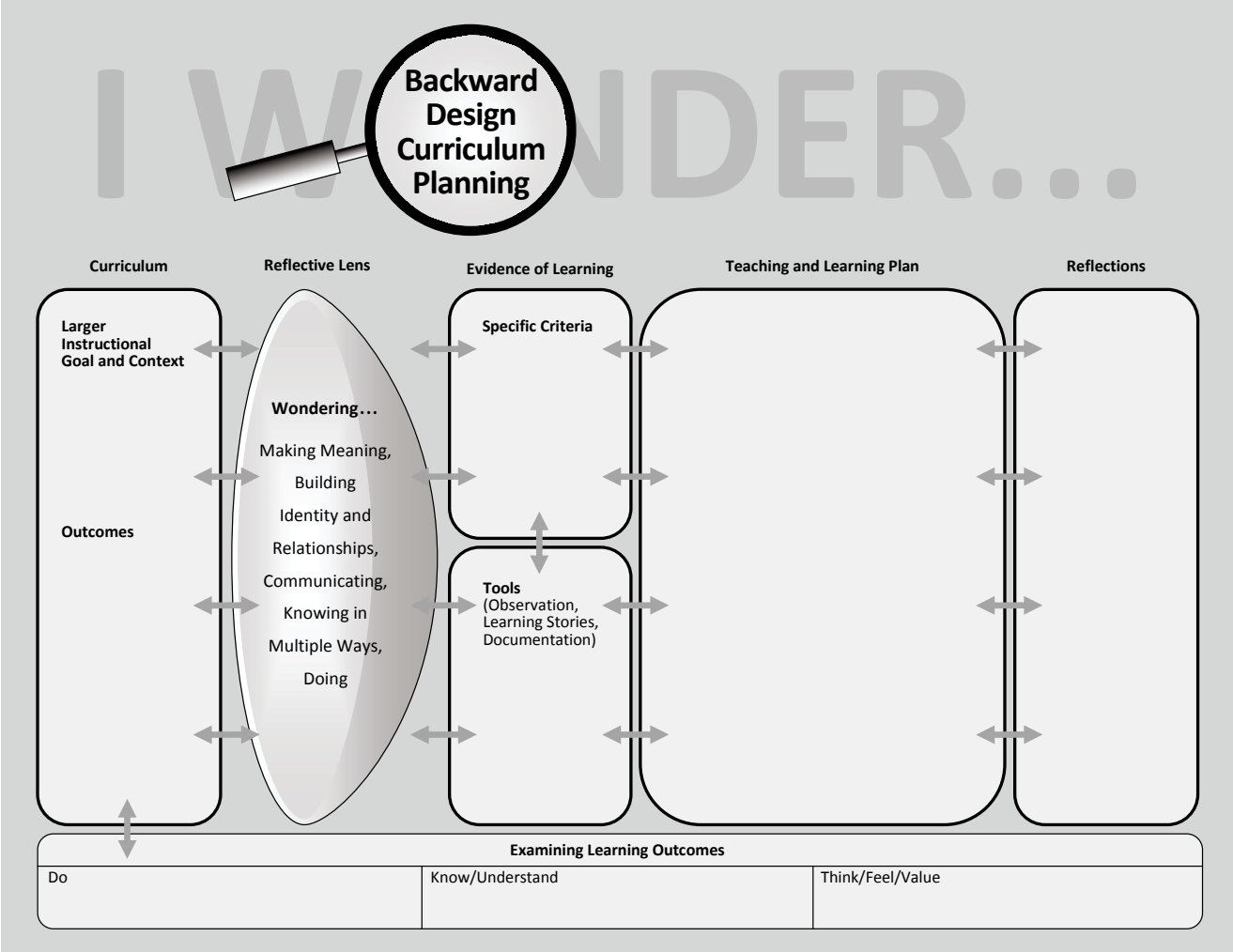


Figure 4.7: Backward Design Curriculum Planning

Reflection: Moving toward a More Child-Initiated Kindergarten Learning Program

Earlier in this chapter, you examined Figure 4.1: The Intentional Teaching Cycle, which suggests that planning occurs only after your observation and reflection of children in your classroom. What would you need to put into place to move from a more teacher-initiated to a more child-initiated Kindergarten learning program?

Documenting Children's Learning

A documentation panel is displayed in the Kindergarten classroom.

Documentation plays a critical role in developmentally appropriate practice (NAEYC and NAECS/SDE). Pedagogical documentation has increased in importance for teachers who are inspired by the Reggio Emilia approach to learning. Loris Malaguzzi, the founder of the Reggio Emilia approach, describes how documentation informs our way of being with children and refines our methods of observation and recording so that the process of children's learning becomes the basis of our dialogue with them. Rinaldi refers to pedagogical documentation as the "visible trace," while Vecchi states that it makes adult eyes more sensitive and acute to what is happening in the classroom.

The purpose of documentation is to create a visual record of children's learning for them, for you, for families, and for other school professionals through the creation of an authentic dialogue for reflection and analysis. It can help make connections between events visible for children. For example, in one classroom, children raised money for the Humane Society and created a display of photographs and children's writings and drawings to capture their learning. The culminating learning experience involved a special classroom visit by a representative of the Humane Society along with several pets waiting for adoption.

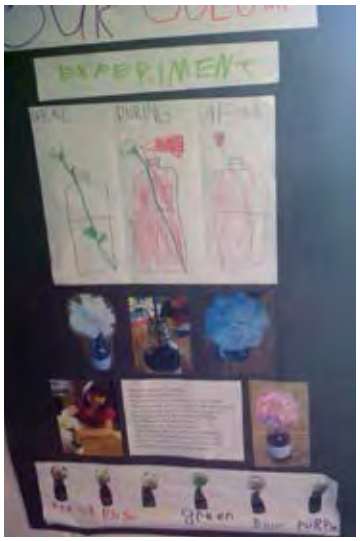
Documentation "allows for the most relevant issues to be in the forefront of . . . the educators' minds as they create a supporting environment that allows learning through play to happen, as well as the children's minds as they investigate and make sense of the world around them" (Zigler et al., as cited in Gabriel and Doiron 12–13).

Documentation helps children and teachers to review past experiences and to make plans for future learning. It makes learning transparent for children, as well as for their families, who may wonder about your play-based Kindergarten and what exactly their children are learning. Your careful scribing of children's stories and conversations shows that you honour them and their families and helps create a "caring community" because children see themselves and their impact reflected in the classroom everywhere they look.

Many teachers make good use of technology to document, communicate, and reflect on children's learning, capturing and displaying it through video recordings, the creation of PowerPoint presentations, the use of tablets, digital photo frames, audio recordings, and so on. Low-tech ways to document learning are just as valuable. These might include photo albums available for children to browse through in your book corner, framed family photos placed on shelves or walls to build continuity between home and school, child-made books on the bookshelves, and CD recordings in your listening centre of children's voices as they play, tell stories, sing, or experiment with instruments. Create a scrapbook of the block creations children

are most proud of and place it in the block area; you will find that these "souvenir shots" of the structures children have built often help the cleanup process to be more agreeable for young builders. Many teachers develop personal portfolios for children in their class for sharing with families.

Documentation Displays



A story panel documents children's inquiry about colour and about how plants drink water.

Another type of documentation is the *Learning Story*, developed by New Zealand researcher Margaret Carr and her colleagues. Learning Stories are "documented and structured observations that take a storied approach and a non-deficit (credit) approach, and an underlying agenda of protecting and developing children's identities as learners" (Carr et al. 29). Teachers write directly to the child or children in the Learning Story, describing for and with the child the unique experiences and impressive learning underway. (Learning Stories can also be reformatted easily and can be emailed to parents or shared in classroom newsletters you send home with the children.)

Floor books are big books filled with children's Learning Stories. Floor books are created together with the children in a format large enough that children can work on them on the floor, and then later page through, look at, and reflect on them on the floor. Scottish nature educator Claire Warden appreciates the use of floor books to "encourage thinking skills through talking together in a group so that children are consulted and influence the learning taking place" (*Talking and Thinking Floorbooks*). Large artists' books or portfolio wallets work well for these large-scale documentations. Children can draw in them, you can add photographs to them, you can scribe children's own words in them, and children can add their own emerging writings, too.

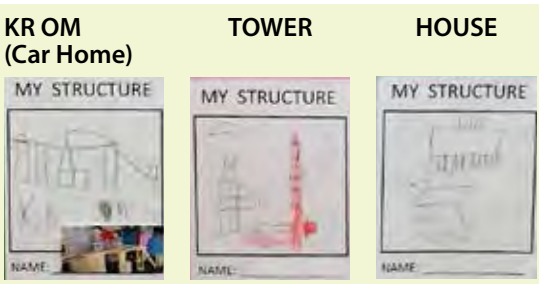
By creating *story panels* for wall displays, you bring documentation into children's environments in a much bigger way. When using story panels, you pair photographs and learning artifacts with captions and conversations, and display them at children's height so that they can easily recall and reflect on their learning in your classroom.

Many teachers use these and other ways to involve children in the documentation process and to provide them with multi-modal representations to show what they know and how they think. When you help children to see and reflect on their own learning, you are building their metacognition, the ability to think about their thinking. This also helps create a shared understanding among teachers, families, and children, and helps you to further your own "understanding of the concepts children are building, the theories they are constructing and the questions they are posing" (Fraser, as quoted in Ontario Ministry of Education, *Capacity Building Series K–2*, 2).

The Block Centre Learning Story (Example)*

The following is an example of how one Kindergarten teacher documented literacy learning in her block centre using the Learning Story format. You can find a sample template in Appendix G: Learning Story.

Children's learning about different types of structures is on display in the classroom.



Close-ups of children's own journalling pages serve as documentation of what they chose to build and demonstrate their understanding that there are different ways to represent their good ideas.

Children play constructively with their blocks. (Note the "igloo" children previously created over a few days using milk jugs—loose parts added to their play space.)

* Used with permission of a Kindergarten teacher.

Literacy in the Block Centre Learning Story*

Observations at (name school) _____

Observations of (name centre) Big Block Centre Date February 25, 2015

Capture **details** of what you see and hear.

What do you see? (Who, what, when, . . .)

I see three children playing at the big block centre during exploration time. They are excited about building. I have not seen these three students play together before. They are working so well together to build a structure for the cars to drive on. There are ramps and bridges. The children are cooperating and working as a team. They are talking to each other and building off one another's ideas as they work together to adjust the slope and angle of their ramps.

When we come back to the carpet as a group, those three students share with the group what they built.

Students draw the structure and do some writing about their structure.

What do you hear? What are the children saying? (Add some direct quotes.)

"My truck is driving down the street, but it isn't driving straight. It keeps falling off."
All three students laugh.
"It's falling into the lava."
"Quick, bring it to the bathtub."
"Mine drives straight, see." (lets car slide down ramp)
"Look at mine, it jump, here, there!" (EAL child)
"Uh no, it fell again." (the blocks)
"Under this, here, this, have to put it here." (straight and tight against the block). "There." (EAL child)

The three students take turns talking to the group about their structure:
"We build car home." (EAL child)
"And slides, for the cars."
"There's lava and the cars fall in lava."
"But we made a bathtub to wash the car."

What English language arts (ELA) literacy learning outcomes are developing/developed?**

- Talk about personal experiences.
- Listen to experiences and feelings shared by others.
- Wonder about and question new ideas and observations.
- Recognize environmental print, symbols, and images [such as illustrations, photographs . . .] in context; recognize own name and personally familiar words.
- Recognize that print is organized from top to bottom and left to right; recognize that letters represent sounds and match sounds with print.
- Demonstrate curiosity about and experiment with letters, sounds, words, and word patterns.
- Ask questions to satisfy personal curiosity and information needs.
- Ask and answer questions to help satisfy group curiosity and information needs.
- Identify self and others as sources of information.
- Seek information from others [such as people at school, at home, in the community . . .]; use multimedia and computers when appropriate.
- Use illustrations, photographs, video programs, objects, and auditory cues to understand ideas and information.
- Share ideas and experiences through talking, storytelling, pictures, singing, illustrations, and print.
- Talk about own and others' creations and stories.
- Form recognizable letters and use letters and directional arrow keys on the keyboard.
- Describe and enhance own drawings, stories, and writing.
- Use drawings and labels to express ideas, feelings, and information.
- Connect sounds with letters in words.
- Demonstrate active listening and viewing skills and strategies [such as showing attentive facial expression, keeping respectful silence . . .].
- Participate in cooperative group activities.
- Demonstrate attentiveness in group activities.
- Find ways to be helpful to others and use group process.

What materials did you add to meet the ELA learning outcomes?

I added many materials to the classroom to create the big block centre. I ordered hollow blocks, and I made additional big blocks by sanding and treating (using natural oil) two-by-fours. Providing a new kind of play centre brought new students together and allowed for so much cooperation and conversation.

Sharing time was added after exploration time. This allowed students to share their experiences orally with the group. It allowed others to listen, wonder, and be inspired.

I provided students with a journalling page to document their time at the big block centre (and the manipulative centre). We started to create a bulletin board display of all the kinds of structures we could make, which included photographs of famous buildings, such as the Eiffel Tower, as well as the children's drawings and writings.

How can you further enrich the literacy learning at the block centre?

Add books about famous buildings, construction, and volcanoes, as well as real blueprints, graph paper, and carpenter's pencils to the shelves near the blocks.

* Used with permission of a Kindergarten teacher.

** Source: Manitoba Education and Training. *Kindergarten to Grade 4 English Language Arts: Manitoba Curriculum Framework of Outcomes and Grade 3 Standards.* Winnipeg, MB: Manitoba Education and Training, 1996.

Note: The ELA curriculum is currently being renewed. You can access information and processes for reflecting on the new curriculum in the group Reflecting on and Moving Forward with a New English Language Arts Curriculum at the following website:
Manitoba Education and Advanced Learning. *Manitoba Professional Learning Environment (Maple).* <www.mapleforem.ca/> (20 Nov. 2015).

Analyzing Your Pedagogical Documentation

Documentation helps you to pause to reflect on and to celebrate the personal accomplishments of individual learners within the group. Document not only prior to parent-teacher meetings, but all year long and in all the various learning settings. Avoid using it only to assess narrow skill development or the way children use a specific learning product, such as a workbook or concept kit. Instead, use documentation to individualize and differentiate your teaching approach to fit children's emerging interests and needs.

Documentation enables you to co-construct learning experiences *for* children *with* children and to nurture their sense of wonder and joy. Teachers appreciate

> an opportunity for shared reflection that supports both *assessment for learning* and *assessment as learning* practices. On the one hand, documentation provides educators with the "evidence" to provide timely, specific and descriptive feedback to move learning forward. On the other hand, it allows educators to go one step further, to help students self-assess to "become directly involved in the learning process, acting as the 'critical connector' between assessment and improvement (Earl)." (Ontario Ministry of Education, *Capacity Building Series K–2*, 3).

As you interpret the documentation you have gathered, consider the implications for your teaching:

- **What does your documentation show you about children's understanding of the topics they are discussing, the theories they hold, and the discoveries they are making?**

  In the preceding Learning Story, the boys built ramps and bridges to protect their cars from lava, but reasoned that if cars fell in, that was fine, since the lava could be washed off in the bathtub. Do you have questions about the depth of their understanding of a topic (e.g., Do they understand how hot molten lava is?)?

- **How will you build on (or scaffold on) ideas articulated by the children as they explore and question?**

  In the Learning Story example, the teacher might choose to

  - read a book about volcanoes to the children
  - find video footage of a volcano exploding for children to watch on an interactive whiteboard
  - make volcanoes out of baking soda and vinegar at the sensory table and allow children to drive their cars through it
  - set up a water play station where cars can have their lava washed off

- **How does your own input affect where children go in their learning?**

  The addition of loose parts to the play centre might have been the provocation for the children to build ramps, bridges, and roads.

- **Are other factors contributing to children's interest in this topic?**

  For example, is the interest in lava emerging from the experiences of one child's recent family visit to the site of a volcano while on holidays in Hawaii? Major road construction adjacent to the school may excite the interest of young builders. The presence of an emerging bilingual child in the peer group may influence the direction conversation takes.

- **When you compare your current and previous documentation, do you notice any changes? Do you observe differences during various times of the day, or as time passes during the school year?**

  For example, the three boys in the Learning Story have not played together before, and the EAL child has not been as outspoken during free play before as he was that day.

- **Once you have reviewed the documentation, what will you do with it? Will you undertake any investigations or research yourself? Will you make any changes to your teaching strategies? Will you introduce new materials to the learning environment? Will you select a different documentation format to capture children's learning?**

  As you review the photographs you have taken and the notes you have made, reflect on what you saw and what you understand about the children and their learning. In the Learning Story example, the teacher identified many English language arts learning outcomes that were being met through the children's inquiries. She decided to add books and blueprints. She might also

  - think about all the Kindergarten subject areas in an integrated way, noticing the many mathematics and science learning outcomes that were also met during the play
  - read more about gravity, engineering, and the construction of ramps and bridges
  - bring in photographs of bridges, on- and off-ramps, and roads, and post these near the block area
  - invite a parent who is an engineer to visit the class to share experiences with the children
  - add stopwatches so children can measure the speed of their cars going down an incline, provide a simple level to help children further explore the slope of their structures, and supply notepads and pencils for children to record their own data
  - offer children the use of a smart phone or class tablet to take a video of their cars as they drive across bridges and down ramps
  - encourage children to tell more about their story, and scribe it for them

- **Will you discuss the documentation with all the children during your group time?**

  The teacher in the Learning Story example invited the boys to share their learning with the larger group. She might ask the other children to tell her what they know about lava, slopes, and angles.

- **How will you use your documentation to inform your authentic assessment? How will you scaffold on where children are at to support their continuing growth within their respective ZPDs?**

  In this case, the teacher learned some important information about one boy's emerging language skills that would help her to see where he is on the Early Years EAL Acquisition Continuum.

Portfolios

The use of *portfolios* for documentation allows you to intentionally collect samples of children's work across multiple environments and over a period of time, in order to create a comprehensive and meaningful picture of each child. That picture shows a child engaging in tasks and routines that are personally meaningful and authentic. Because children are involved in the creation of their portfolios, you co-construct them with children as active agents, recognizing the socio-cultural nature of learning, and balancing child-initiated and adult-guided learning processes (Notari-Syverson and Losardo).

One of the most important benefits of portfolios is that they encourage children to self-reflect and self-assess. When children are involved in selecting what goes into their portfolios,

A child's portfolio.

> they can review their work, talk about their thinking process that occurred during the work, discuss their interests and habits, and make choices about which pieces to include. Portfolios also offer children a way of understanding their own progress . . . [thereby providing] exactly the kinds of experiences that have been found to support the early development of metacognition—an aspect of cognition recognized as critical for learning. (Larkin, as cited in Laski 39).

The documentation process has the additional benefit of helping you to scaffold children's thinking and learning. As you review with the children themselves what questions they are investigating, which experiences they enjoy, their actual conversations, and videos or photographs of their creations and discoveries, you encourage them to reflect on what they have been learning about and what else they would like to know (Belinda 3). For example, "Yesterday you figured out how to balance the big blocks on top of the little ones. Do you think you can do that again? What discoveries will you make today?"

Reflection: "I See You!"

Consider these questions to help focus your thinking about documentation and your response to what you see children doing in your classroom.

- What do the children in your class know?
- What are their theories about the world and how it works?
- What relationships do they see (between materials, people, prior experiences, and so on)?
- What follow-up questions could you ask to help children test their theories and generate new ones?
- What are some possible next steps and provocations to support children's thinking and research?

Assessment through Play-Based Learning in Kindergarten

In play-based Kindergarten learning programs, both instruction and assessment occur within the meaningful context of everyday learning. In this way, you will learn more about children's strengths and challenges across their development, and how to differentiate accordingly. You will appreciate the differences and similarities between children's various learning approaches, and discover what they already know about a topic, how they construct new knowledge, and what problem-solving strategies they use. You will make sound decisions about your own teaching strategies and identify concerns that may indicate intervention is required.

Screening and Early Identification

Manitoba Education and Advanced Learning requires school divisions to outline a process for the identification of early learning needs that includes screening for early identification from Kindergarten to Grade 4: "Early identification refers to the process used to identify students with exceptional learning needs in preschool, kindergarten, the early years, or as early as possible in students' education before or after their entry into school" (Manitoba Education, Citizenship and Youth, *Appropriate Educational Programming in Manitoba: Standards for Student Services* 12). School divisions determine the screening tools and assessment procedures to be used in early identification. To confirm the process in place at your own school, you may wish to consult with your principal or student services administrator. Prior to a child's enrolment in school, or early in the school year, someone from the school division typically consults with parents to collect relevant medical and family information. This will include results of hearing and vision testing, as well as information about the child's motor development and general health.

An initial assessment is being done with a young Kindergarten child at a school division's EAL reception centre.

Screening is often used to gather information about a child's physiological development for an introductory profile. (The term *screening* itself is somewhat of a misnomer, as the process is not used to screen readiness for school.) Screening should never be used to label children or to keep them out of school. It is just your preliminary step in the creation of a more comprehensive developmental profile.

In the first weeks of school, interact with your EAL students and document their language skills in both English and their home language whenever possible. What vocabulary words is the child using in English? Does the child respond to simple questions? Record your findings. It is also informative to learn about what the children are able to do in their first language. A simple way of doing this is to ask a child's parent to interact with the child in their home language while you observe their discourse. Can the child count in the home language? Is the child asking questions? Does the child know the names of basic items in the Kindergarten classroom? Even without being able to speak the child's language, teachers can learn much about the child's use of his or her home language by observing the discourse between a parent and a child.

Screening Considerations

Prior to any screening of an EAL child, you will need to collect information about the child's home language and cultural influences. Consider the following types of questions:

- What languages are spoken in the home?
- What is the dominant language used in the home?
- In what educational programs has the child been involved? In which language(s), where, and for how long?
- What are the English skills of the parent or other significant family members?
- Is the parent literate enough in English to fill in the parent portions of the screening tools?

The answers given in response to these types of questions should be taken into consideration when analyzing the results of screening tools (Law and Eckes).

A standardized screening instrument is sometimes used early in the school year. According to Meisels and Atkins-Burnett (63), a developmental screening instrument should

- be a brief procedure that identifies a child at risk for learning problems or disabilities
- focus on developmental tasks rather than academic readiness tasks
- sample a wide range of developmental areas
- provide data concerning the reliability and validity of the screening instrument

If this type of screening (which also measures cognitive development) occurs, the information gathered should not lead directly to programming, since by its very nature it is designed to indicate only possible variations in development.

There are various screening tools to choose from, including the following:

- **Ages and Stages Questionnaires (ASQ):** Many early childhood partners use this questionnaire with parental input. It is considered a reliable way to screen infants and young children up to about 5.5 years of age. It is available in English, Spanish, French, Korean, Norwegian, Arabic, and Mandarin.
- **Nipissing District Developmental Screen:** This Canadian tool, completed with parental input, is used with children under the age of 6 years. It is a short checklist of some of the most critical skills that a child should master by a particular age and helps determine any areas in which a child may require extra help. It is available in English, French, Spanish, Chinese, and Vietnamese.
- **Early Years Evaluation Direct Assessment (EYE-DA):** This Canadian screening tool is used with children aged 3 to 5 years as they prepare for and make the transition to school. It facilitates discussion between professionals and parents in goal setting for children and helps focus intervention on strengths rather than needs. In some jurisdictions, this tool is administered to all children before they enter Kindergarten as a universal screen for possible academic or developmental delays. It takes about 30 minutes per student to complete and requires teachers to be trained in its use.

Screening information is never a substitute for your own observations of the children within your Kindergarten environment. Your observations may confirm or contradict the screening information, and may become the basis for collaboration with parents and resource and support personnel in planning ongoing programming for children or in determining whether a more formal diagnostic assessment is indicated.

Manitoba school divisions regularly assess the learning of all students. Through ongoing assessment, some students may be identified as having exceptional learning needs. Classroom-based assessment is especially critical to the early identification of exceptional learning needs. As you know, school divisions must ensure that students are not missing any educational programming while assessments are underway or prior to the preparation of an individual education plan (IEP). Parents and community partners, such as early learning and child care staff, need to be aware of school division policy on early identification. They may be invited to IEP meetings as part of the transition of young children into school and welcomed to share information that is relevant to the planning and implementation of educational programming for the children.

Prior to their start in Kindergarten, some children with exceptional learning needs may already be in receipt of early intervention within their child care program or through Children's disAbility Services, Manitoba Family Services. In that case, a smooth sharing of important information from the sending program to the receiving school will likely occur, following Manitoba's *Protocol for Early Childhood Transition to School for Children with Additional Support Needs* (Healthy Child Manitoba). (You can read more about creating smooth transitions for children and families in Chapter 10.) School division policy on early identification should outline what information is required for planning and implementing a student's educational programming upon school entry, and outline the process to be followed when students are not meeting the expected learning outcomes. (*Expected learning outcomes* are identified in the regular curriculum and include social/emotional, behavioural, sensory, physical, cognitive/intellectual, communication, academic, and health outcomes.)

Kindergarten teachers have the responsibility to help all children to learn and to be full participants in the life of the classroom. This may involve working collaboratively with parents, resource teachers, and other support personnel, where appropriate, to achieve goals. Classroom teachers are committed to assisting every child to prepare for living with the highest degree of independence possible.

In any given classroom, children may demonstrate a wide range of strengths and needs. Kindergarten teachers plan educational programming that recognizes this diversity and gives children tasks and challenges that respect their particular abilities so that all children can derive the greatest possible benefit from the teaching and learning process. The use of flexible grouping for instruction and the provision of ongoing assessment are important elements that accommodate a diversity of learning needs.

Reflection: Early Identification

How do the policies of Manitoba Education and Advanced Learning and of your school division guide your own approach to early identification and early intervention?

Authentic Assessment

All personnel involved with children must be aware of the many assessment and evaluation techniques used. No single method should be used exclusively. However, the primary emphasis should be given to observations by parents, teachers, and resource personnel.

Classroom-based assessment occurs when educators gather information about what their students know and can do during authentic learning experiences in the classroom. This information, gathered over time, provides descriptive feedback to children and informs your teaching. In the Kindergarten classroom, you will gain most of this information through observation of learners in rich learning/teaching contexts. You can then differentiate your instruction to meet the diverse needs of the children in your class.

Young children tend to make-believe or play by taking various community member roles. The subject area curricula encourage students to explore their environments as writers, mathematicians, scientists, and so on. As they play, children pose questions, identify problems, and develop creative solutions in a variety of roles. For example, through play, children "do, read, say, or write" what mathematicians do, read, say, or write. These actions become observable performances or evidence of each child's learning within the various curricular and behavioural learning areas. Children's learning can be documented through videos (of interactions, explanations of samples, or conversations), photographs, electronic portfolios of work samples, continua, quality criteria, or peer feedback. With your support, young learners can then use this documentation to help set personalized goals for writing, reading, solving problems, creative artwork, and so on.

At times, assessing a child's development can feel like a complex and challenging task. While you are busy observing that a child grows and changes month by month, you may struggle a little to describe this growth in terms of specific goals or objectives reached or to recognize that the child is more than those noted specifics. You may try to help a child develop self-understanding and find meaning in living and learning. At the same time, you may find it difficult to assess the success of the child at these very things.

The Division for Early Childhood (DEC) of the Council for Exceptional Children recommends that

> evaluating the child within the context of play, social interactions, and care-giving routines requires that the assessment process focus on the demands and expectations of the environments where children live, learn, play, and work rather than merely children's relative standing in a normative group. This ecological perspective recognizes that physical, social, and psychological contexts are interwoven and affect performance; and that domain (e.g., communication, motor, cognitive), discipline (e.g., speech and language pathology, occupational therapy), and specific skills and behaviors (e.g., . . . personal pronouns, spatial relations) are inconsequential when assessed out of context. (Neisworth and Bagnato, as cited in DEC 14)

Authentic Assessment

During choice time, a child and his teacher enjoy a game of cards. To play "War" successfully, this boy demonstrates his understanding of underlying mathematical concepts, such as counting and "greater than" and "less than." The boy's card play provides the opportunity for authentic assessment, and shows his teacher something important about his mastery of the social skills required to play games with rules, and his ability to self-regulate as he takes turns and plays fairly.

(L) A boy and his teacher enjoy a game of cards.

Since each child can show learning in unique ways, quality assessment practices in Kindergarten highlight each child's strengths and help formulate plans for next steps in learning. Each child's best learning and growth can be observed *through* or *in* the context of meaningful engagement or play, positive relationships, and creative environments.

Young children learn through social interaction and make meaning by exploring their environment. Environments in which children can play or discover new insights and interact with others provide optimal conditions for quality assessment. As children make choices, write, read, add, measure, construct, talk to each other, identify and solve problems, reflect, and make connections with what they already know, they share knowledge and skills that are observable. Observing and documenting evidence of learning in these environments can occur quite seamlessly without assessment being seen as an additional measure or tool. As you teach, observe, and interact with your students, you assess and provide feedback for learning. While assessment practices are typically categorized in terms of *for, of,* and *as* learning, assessment to determine a young child's learning happens primarily *through* or *within* the context of meaningful engagement or play. Assessment is relational in this context and requires social interaction and conversation. Establishing the conditions for meaningful interaction and play is a prerequisite to learning and quality assessment.

Observing and analyzing the gathered evidence of a young child's learning helps you to

- provide specific and constructive feedback
- plan for next steps in instruction
- engage students in monitoring their learning and setting goals
- make adjustments to the learning environment to help meet learning needs

Classroom-based assessment is a cyclic process within everyday instruction and learning that encompasses ongoing planning, observing, scaffolding, responding, and reflecting on learning and teaching to improve student learning. Classroom-based assessment is formative (assessment *for* learning). As reflected in the Learning Story earlier in this chapter, when considering the English language arts learning outcomes, for example, you create various authentic literacy-rich contexts that will expose children's thinking and learning in order to relate their observations to the intended learning targets—the listening and speaking competency descriptors and the English language arts learning outcomes. These specific learning outcomes and competency descriptors become your targets for learning, teaching, and formative assessment.

You can think about this assessment process in terms of activating, acquiring, and applying knowledge:

- **Activating:** How do you assess children's prior knowledge, or what they *already* know about the topic?
- **Acquiring:** How do children acquire knowledge, and how will you differentiate your instruction and individualize your approach accordingly?
- **Applying:** What do you see children doing differently? How do they apply their new learning in different contexts? How do you reflect upon and assess children's new understanding?

See Appendix H: Student Tracking Sheet for a simple chart you may wish to use to track how the children are doing as you observe them playing and learning at the various centres, in their journals, during circle time, and so on. Appendix H uses the English language arts practices, but a similar format can be used for each of the subject areas.

Class Profile

Developing a *class profile* is a process by which school teams meet to determine the classroom context through descriptive information collected about the students within the class. This information, which is usually recorded on a Class Profile Recording Form (for a sample, see Appendix I), assists the team in determining how they might work in meaningful ways with you as the classroom teacher. This approach provides for a more efficient and effective service delivery by determining where supports are needed the most. You describe the strengths and needs of the class as a whole, along with the goals for the year. The needs of individual students are also shared; however, the strengths and needs are seen in the context of the classroom versus in isolation. In this way, you are able to plan universally for the entire class, ensuring all the children have access to the curriculum.

Assessing learning *through* or *in* the context of meaningful engagement or play allows you to view learning through the eyes of the learner *as* a writer, reader, scientist, and so on. *Curricular verbs* (such as listen, speak, read, write, view, and represent) provide you with cues about what to include in planning and observation. Collaborative analysis of the gathered data helps your team ask important questions and plan for next steps relative to each child's learning progress and growth.

A variety of instructional strategies (e.g., modelling, explicit instruction, guided practice, descriptive feedback) and student groupings (whole class, interest groupings, cooperative groupings, flexible groupings, and individual students) are used to provide individual children with the instruction, scaffolding, and practice they require to succeed in their learning.

Communicating Student Learning to Parents

Organizing evidence of learning according to curriculum outcomes and across developmental domains helps you to clearly communicate a child's learning achievement, growth, and progress to parents. There is no single "best" way of reporting to parents. The nature of the child, the family, your school, your school division, and the community will influence the methods of reporting you use.

Reporting to Parents

Fundamental principles in reporting to parents apply to parents of EAL learners as well. Effective reporting should recognize language and cultural differences and may require a different report and multilingual documents and services (Manitoba Education, *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language [EAL] and Literacy, Academics, and Language [LAL] Programming, June 2011 Draft*, Section 1, 1.21).

At the same time, sensitive and open discussions with parents help you to share information about the child and to invite parents to share what they know about their child with you. Although parent-teacher meetings can be time-consuming and may be difficult to schedule, families and teachers need opportunities to talk together and share what they know about each child. To make these kinds of face-to-face conversations possible, teachers may require release time during school hours, but may also need to schedule late-day or evening appointments to accommodate parents who cannot make daytime meetings due to their own work schedules.

Prior to your meetings with families, think about and review the many observations you have made about each child:

- What do they tell you about the child's development?
- How does the child relate to peers, to adults in your classroom, and to others?
- What kinds of learning experiences most engage the child?

- What are some favourite activities?
- How does the child demonstrate curiosity? How does the child demonstrate perseverance?
- How does the child handle your classroom routine?
- How are transitions managed?
- What do you hope to learn about during your meeting time with the child's family?
- What do you want to know more about?

In your conversations with families, focus first on the child's strengths (what you see the child can do) and help parents to understand how significant the child's self-concept is to learning. The child's self-concept is supported through the social environment and through the acceptance the child finds both at school and at home. Thus, your careful observations are of vital importance in these discussions.

In reporting on the progress of a young child, resist the pressure to assess only academic development. Instead, report on all dimensions of the child's development: self-concept and emotional, social, communicative, creative, physical, and intellectual aspects of growth. Encourage parents to become involved in planning, implementing, and assessing the child's educational programming. In this way, the school supports the family as the primary agent of the child's development.

What you learn from families is critical and can help ensure that you do not underestimate the child's capabilities. This is why it is important for both parents and teachers to share information about children. Developmental assessment is a continuous process of recording the work children do. During your meetings with parents, you may discuss your observations of the child at work (process) and share samples of the child's work and thinking that you have documented (product). Invite parents to share what they see their child doing at home—the picture that emerges may be very different from what you see at school. For example, one little girl who never spoke out in class was very difficult to assess, as she would not name letters or count aloud when prompted by her teacher. Yet in conversation with the parents, the teacher learned that the child sang Kindergarten songs at home, "read" her books to her baby brother, and shared many of the day's happenings with her family at dinnertime. As the months went by, the child's comfort in Kindergarten grew until she began talking quietly to peers and even to her teacher.

There is no provincial mandate to issue report cards in Kindergarten, but school divisions may develop their own reports. Kindergarten report cards should be comprehensive and use plain language to ensure parents understand what the report cards tell them about their child and the Kindergarten learning program itself. See Appendices J and K for sample report cards shared by Manitoba school divisions.

Reflection: Report Cards in Kindergarten

As you think about what type of Kindergarten report card might be best suited for your school and your students' families, consider these reflective questions:

- Does the report card reflect the whole child? Does it address all five developmental domains, or does it focus primarily on academics?
- Does the report card reflect your view of the child?
  - Does it convey the child's agency within the classroom?
  - Does it convey the child's unique ways of engaging at school?
- Does the report card reflect your beliefs about learning in the Kindergarten classroom?
  - How does it describe the child's learning within a context of play?
  - Does it convey the social nature of learning?
  - Does it describe how the child manages routines and expectations in the classroom?
- How might you use photographs or other documentation to enrich the story you are telling about the child?

Guiding Principle: Inclusion and Diversity

Kindergarten experiences reflect the diversity of children, families, and colleagues, and actively promote inclusion.

Inclusion is more than the presence of a child with exceptional learning needs. All children should be valued, have friends, and feel they belong in their Kindergarten classroom.

Children reflect all aspects of human diversity and are developing their identities as human beings. They are also developing ideas, attitudes, and beliefs about other human beings they encounter in their immediate environment or through exposure to media or through adults around them.

Genuine inclusion ensures active and meaningful participation by every child in the daily educational programming and with one another. As far as possible, inclusive Kindergarten teachers ensure that children with exceptional learning needs have their needs met within the regular group activities and routines.

Through the intentional use of universal design principles, culturally embedded learning, accommodations, modifications, and extra support where necessary, all children, regardless of abilities, are full participants in the classroom community, with equal access to all play areas and all learning experiences taking place. Teachers foster school and classroom communities where all children, including those with diverse needs and abilities, have a sense of personal belonging and achievement. An individualized approach allows students with a wide range of learning needs to be taught together effectively.

Recognizing and respecting diversity is very important to early learning experiences. Such recognition and respect enhances each child's social and emotional well-being and promotes caring, cooperative, and equitable interactions with others.

Diversity in a Classroom

Jennifer Katz defines *diversity in a classroom* by referring to children with exceptional learning needs, but also to children with diverse personalities, ethnicities, languages, family structures, and learning styles. She states: "Teaching to diversity requires that teachers create a learning climate in the classroom and devise activities that allow all children to feel safe, respected, and valued for what they have to contribute" (Katz 3). Effective educators "create environments that invite young students to learn, and welcome diversity in their classrooms. Educators respond to the diverse needs of their students and ensure the success of all their students by differentiating instruction based on their observations" (Manitoba Education, Citizenship and Youth, *Listening and Speaking* 7).

Inclusionary teachers assume that children with exceptional learning needs will make progress and achieve outcomes through individualized, play-based developmental programming within the Kindergarten classroom. They ensure that children of all abilities have equal access to the various learning experiences being offered, and know that when children are together as part of the group, each child's development is enhanced and positive social attitudes are created. Through inclusive practices, teachers help all children to participate actively in the Kindergarten curriculum, "creating or adapting certain activities or using new strategies to meet each child's needs" (Irwin, Lero, and Brophy, as cited in Manitoba Early Learning and Child Care, *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Preschool Centres and Nursery Schools* 9).

Manitoba's Philosophy of Inclusion

Manitoba Education and Advanced Learning is committed to a philosophy of inclusion: "Inclusion is a way of thinking and acting that allows every individual to feel accepted, valued, and safe" ("Philosophy of Inclusion"). Meaningful involvement and equal access to the benefits of citizenship are key to inclusion. In the Kindergarten context, this means you include children with exceptional learning needs in all Kindergarten learning experiences, whether teacher-guided or child-initiated. (For an annotated list of provincial resources, see Appendix L: Resources Supporting Inclusion.)

Appropriate educational programming for most students consists of the expected learning outcomes in the provincial curriculum. Some children may require student-specific outcomes in addition to, or instead of, the expected learning outcomes. For example, EAL students will require EAL-specific outcomes. A child who has difficulty controlling his or her disruptive behaviour may be working on the expected learning outcomes in the curriculum and on a student-specific outcome related to behaviour management. A child with a profound cognitive disability, however, may be working only on functional student-specific outcomes, such as getting dressed independently at recess time, toileting independently, and so on.

Inclusive Schools

Manitoba supports providing all students with appropriate educational programming through a universal design lens:

> Inclusive schools provide a learning environment that is accessible to all students as a place to learn, to grow, to be accepted, and to enjoy all the benefits of citizenship.
>
> Inclusive schools should be aware of the concept of universal design, originally an architectural term referring to the process of creating systems, environments, materials, and devices that are directly and repeatedly usable by people with the widest range of abilities operating within the largest variety of situations.
>
> When applied to the field of education, the concept of universal design means that school communities, including teachers, develop plans for the full diversity of their student population. In education, universally designed schools, classrooms, curricula, and materials provide all students with access to the resources they require, regardless of their diverse learning needs. (Manitoba Education, Citizenship and Youth, *Appropriate Educational Programming in Manitoba: Standards for Student Services* 4)

Universal design (UD) encompasses the following seven principles: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use (The Center for Universal Design). See Appendix M: The Principles of Universal Design.

Inclusive teachers are aware of their students' age and of what they can expect of children developmentally. Consider a simple expectation in Kindergarten, the ability to cut with scissors. Most children are able to cut independently in Kindergarten, but if children have had no previous exposure to scissors, they may not know how to use them. For some students, fine motor challenges may make scissor cutting very difficult. Therefore, in your Kindergarten classroom, intentionally offer a variety of scissors (e.g., left- and right-handed, loop, spring-loaded, and teaching scissors). This is a UD approach.

A teacher and a child use teaching scissors together.

As you guide children's learning, you will offer a variety of cutting options to children, ranging from simple to complex. The Partnering for Change Team suggests ways to help those children whose cutting skill is not yet mature or proficient. Children may begin by cutting straight lines or short snips and corners before moving to curved and jagged lines. You might thicken or darken the cutting line, provide thicker paper or old greeting cards, or use smaller sheets of paper. Children might practise cutting straws into short pieces to make a necklace or try cutting playdough to experience success before moving to paper. You will coach and support children who need a little more help. You may use verbal reminders, such as "cut away from yourself" or "turn the page, not your scissors." You might put a sticker on the child's thumb as a visual reminder of holding the thumb up on top. You might use teaching scissors (pictured) to help the child experience the cutting motion with your physical support. As a last choice, you might provide pre-cut shapes/pictures (Partnering for Change Team).

Instructional Supports for Addressing Student Diversity

Manitoba Education and Advanced Learning has identified a range of instructional supports for addressing student diversity, including *differentiated instruction*, *adaptation*, *modification*, and *individualized programming*. This is not a continuum of supports; rather, each instructional support is intended to address specific programming needs in consideration of expected learning outcomes and/or student-specific outcomes. For comprehensive information about the student-specific planning process and the development of individual education plans (IEPs), see *Student-Specific Planning: A Handbook for Developing and Implementing Individual Education Plans* (Manitoba Education).

Differentiated Instruction

Differentiated instruction (DI) is an approach that acknowledges and responds to the differences among learners, each of whom has different strengths and needs and a unique pace and pathway to development. Think about those children in your classroom who are exceptionally gifted, as well as those who may be struggling with core Kindergarten concepts. Educators plan their Kindergarten learning program through differentiated instruction. In fact, differentiation is the life of the Kindergarten classroom and is the essence of developmentally appropriate practice.

Differentiating instruction as a method of instruction or assessment may alter the choices you make about how to address the curriculum to respond to the children's learning diversity, interests, and strengths. Teachers can differentiate curriculum in three broad areas: content, process, and product. Differentiated instruction is

> an effective way to offer individually, linguistically, and culturally appropriate curriculum that helps all children meet learning goals . . . [and] is especially important in early childhood programs because the foundations of children's future learning are being constructed. It creates multiple paths by which children of different abilities, interests, and learning needs and those who come from different backgrounds may absorb, use, develop, and present concepts. (Massachusetts Department of Elementary and Secondary Education 5–6)

Kindergarten teachers have found many ways to differentiate instruction in their classrooms, including the use of play-based learning centres, small groups, flexible groupings, teacher-guided learning experiences, and scaffolding. In the Kindergarten classroom, differentiating instruction could mean guiding certain children to the dramatic play centre to encourage conversation and the use of body language, or grouping particular children together for chanting poetry or singing songs to work on articulating certain sounds. Learning opportunities may be simple or complex, tasks may be highly structured or open-ended, and students may work independently or as part of a group. Children may show their learning by talking about what they have learned, by demonstrating a new skill, or by making something.

Selecting and Documenting Language Goals

For information on selecting language goals and recording and communicating about the EAL student's language progress, see Section 4a of *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming* (Manitoba Education). It is recommended that teachers select language goals for instruction that correspond with the EAL student's stage of language proficiency. Teachers should consider documenting these selected language goals in some form of student-specific EAL language plan and using the plan to document and record the EAL student's progress in English language development.

Stages of language proficiency are described in the curriculum framework and should be used when communicating about a student's English language development.

The intent of differentiated instruction is to maximize each student's growth and individual success by meeting the child where he or she is at (in the zone of proximal development) and assisting in the learning process. Differentiated instruction can follow many avenues for reaching the expected learning outcomes, and each student requires a complex and unique mix of basic instruction and practice to reach his or her potential. Educators differentiate instruction to offer students options at various stages of the learning process.

Differentiated instruction involves the gradual release of responsibility, where the responsibility for learning gradually shifts from the educators to the students (Pearson and Gallagher). Educators introduce a learning strategy with explicit instruction and modelling, followed by guided student practice with teacher feedback, and eventually leading to independent student application of the skill or strategy. In the beginning, instruction is educator-led, then instruction is shared/negotiated by the educator and the student, and finally, instruction is led by the child (Tell me, Show me, Let me try . . . , or Me, We, We, We, You).

Adaptation

Providing adaptations for students with exceptional learning needs should be the first option considered in planning for a child's unique needs. Instruction based on principles of universal design and differentiated instruction should include provision for adaptations to meet the diverse needs of learners in your Kindergarten class.

Adaptation refers to a change made in the teaching process, resources, assignments, or pupil products to help a child achieve the expected learning outcomes. Adaptation addresses identified child-specific needs. For example, a student with a visual impairment may require information and directions to be presented verbally as well as in writing, and may need to demonstrate his or her learning in the same ways. A student with an attention disorder may benefit from "chunked" instructions and may require a checklist to monitor task completion. The child might benefit from holding onto a "fidget toy" (a small toy that is squishy or pliable) or from periodic movement opportunities during your circle time to balance sitting and listening.

Figure 4.8 presents a conceptual model of an adaptation continuum, which may be helpful as you consider the "right" place to adapt for a student. Your goal is to use the least intrusive adaptation. If that one does not have the result you want, try the next least intrusive adaptation.

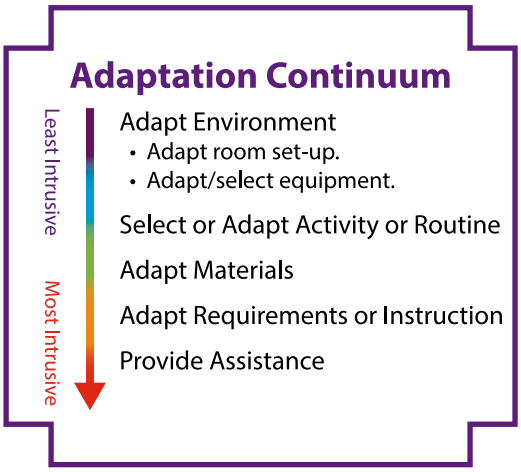


Figure 4.8: Adaptation Continuum*

* Source: Milbourne, Suzanne A., and Philippa H. Campbell. *CARA's Kit: Creating Adaptations for Routines and Activities. Consultant's Guide*. Philadelphia, PA: Child and Family Studies Research Programs, Thomas Jefferson University, 2007. 4. © Philippa H. Campbell. Reproduced with permission.

Modification

Modification is appropriate for children who have a significant cognitive disability, and refers to altering the number, essence, and content of the curricular learning outcomes that the student is expected to meet. Students receiving modification will have an IEP that details the curriculum modifications and an implementation plan.

Individualized Programming

Individualized programming is intended for students whose cognitive disabilities are so significant that they do not benefit from participating in curricula developed or approved by Manitoba Education and Advanced Learning. Individualized programming identifies highly individualized learning experiences that are functionally appropriate. Students receiving individualized programming will have an IEP that details their student-specific outcomes and implementation plan.

Individual Education Plans (IEPs)

Student-specific planning is the process through which members of student support teams, including educators and parents, collaborate to meet the unique needs of individual students. The purpose of student-specific planning is to help children attain the skills and knowledge that are the next logical step beyond their current performance levels—what Vygotsky refers to as children's respective zones of proximal development.

Through the student-specific planning process, the student support team works to identify a student's unique learning needs and to determine, implement, and evaluate appropriate educational interventions. These interventions may range from short-term strategies applied in the classroom to comprehensive, individualized programming. The student-specific planning process is sufficiently broad-based to address, in a systematic way, a wide range of exceptional learning needs, but a student's IEP must be referred to regularly to have a real impact on his or her long-term progress and achievement.

IEPs document the student-specific planning process. While school divisions may use different terminology to describe student-specific planning processes and written plans, the intent of IEPs is to serve as customized planning, record-keeping, and communication tools developed and implemented by a team, to address the unique learning needs of students.

Most Kindergarten students achieve the expected learning outcomes of provincial curricula with the support of inclusive classroom teachers who use a variety of instructional and assessment strategies and materials. For some of your students, you may be the first to identify that they are experiencing learning challenges. However, only a small number of students enter school with undiagnosed conditions and/or unidentified learning needs.

A child who is visually impaired reads a book with raised dots, a precursor to learning to read in Braille.

While the children and their teacher learn about pumpkins during their circle time, the child who is visually impaired wears a weighted neck wrap, which helps him to self-regulate, and is provided with a pumpkin to touch and hold during the storytelling and conversation.

Guiding Children's Behaviour*

You work hard to create a caring community of learners where all children feel safe and welcome. You apply what you know about child development and developmentally appropriate practices, observe children regularly, ensure that children are neither bored nor frustrated, deepen your relationships with children as individuals, and help them learn to trust you. Yet despite your intentions, there may be times during the year when conflict arises, when aggression is used, when hurtful teasing occurs, or when children are defiant.

What are the best ways to guide the behaviour of your young students and to enhance their social and emotional well-being? The research-based strategies that follow can help you to help all children in your classroom, not only those experiencing difficulties.

Get to know each student and what may be affecting his or her behaviour. Observe children carefully and pay attention to the environment where specific behaviours are happening. For example: Do children have to wait for the whole group before leaving the snack table or using the washroom? Are they expected to stop playing without notice and change activities often? Do children and adults have to shout to hear each other over background music? These observations will help you adapt your approach and increase positive behaviours. Listen carefully, look at each situation from a child's perspective, and determine what changes you need to make.

When we are uncomfortable with a child's behaviour, it can be difficult to respond appropriately and effectively. It is important to know when we are losing control, recognize our own discomfort, and discuss it with supportive team members. Because every situation is different, behaviour guidance requires ongoing decision making. Remember to be patient, even if a strategy does not work in a particular situation. Sometimes you might need to use a strategy for some time, before you see improvement. Remain flexible and, when needed, try other strategies that may fit the situation better.

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* Source: Manitoba Early Learning and Child Care. *Best Practices for Guiding Children's Behaviour.* Winnipeg, MB: Manitoba Early Learning and Child Care, n.d. Available online at <www.gov.mb.ca/fs/childcare/pubs/behaviourguidancestragies_web.pdf>. Adapted with permission.

What can you do to encourage positive social interactions?

Strategy	Practice
Seek many opportunities to **interact** with each child and give **individual attention**.	Snuggle up and read a book together; ask questions and begin a conversation with a quiet child; join in active play with an energetic child.
During your circle time, **role play** or use puppets to teach children how to succeed in social interactions.	Give children scenarios such as "What if you want a toy that someone else is using?" Discuss possibilities and help children try out their ideas. For example: "Can I use that puzzle when you're done?"
Use words you want the children to use to model appropriate social behaviours.	Ask: "Can I play with you?" or "Can I help?" before you join children in their play.
Watch closely for positive behaviours and tell children when their language and behaviour is appropriate. Make positive comments more often than negative ones.	"I noticed you zip up your friend's jacket. That helped her to be ready for outdoor play sooner. Thank you."
Be specific with feedback when giving attention, so children understand what behaviour is appropriate.	Try: "The two of you were so helpful working together to bring chairs to the table." instead of "Good job."
Help children **develop a short list of basic rules** to follow during daily interactions and activities.	Ask: "How should we care for ourselves, our friends, and our toys?"
Post the list of rules with pictures to illustrate them where children can see them easily.	Include photographs of the children showing respect for themselves, for others, and for toys.

What can you do to discourage inappropriate behaviours?

Strategy	Practice
Have realistic expectations for each child. Ensure that expectations are developmentally appropriate for each child and that children respect individual social and cultural backgrounds.	Help children understand the perspective of others by asking: "How do you think hitting made him feel? How can you make him feel better?"
Break tasks into smaller steps that the children can manage.	During cleanup time, try: "Please put three toys on the shelf," rather than "Put your toys away."
Offer help if a child seems frustrated with a task.	Ask: "Can I help you with your zipper?"
Use positive language that focuses on the expected behaviour.	Provide a reminder: "Please walk," instead of "Don't run!"
Provide logical reasons when stating limits.	Try: "Please use a quieter voice so I can hear what you are saying," instead of "Stop shouting!"
Restate the message differently, if the child does not seem to understand what is expected.	First try: "Take your things to your locker." Then try: "Hang your snow pants and coat on your hook."
Use a calm and encouraging tone of voice that expresses your confidence in the child's ability to stay calm and solve a problem.	Show a positive attitude: "I know you can do it!"
Use positive body language and facial expressions to convey support.	Keep arms relaxed, rather than on hips. Smile instead of frowning.

(continued)

Strategy	Practice
Respond consistently so children have many opportunities to practise what is expected of them.	If children are expected to mop up spills at the water table, remind them each time if needed. Avoid doing it for them, even when it may be faster.
Model techniques to help children learn to calm themselves when they are upset.	Allow children to see you express and deal with different emotions. "I'm feeling frustrated. I'm going to take the time to calm down by counting to 10."
Wait until children are calm before speaking with them.	Quiet, relaxing time in a cozy area might be comforting until the children are ready to communicate and solve the problem.
Ensure strategies are consistent among all adults who work with your Kindergarten students. Review and discuss your preferred behaviour guidance approach regularly.	Review your strategies with your educational assistant, teacher candidate, teaching partners, volunteers, or other adults who spend time in your classroom.

What should you consider when planning the schedule, transition times, and daily experiences?

Strategy	Practice
Provide large blocks of time each day for uninterrupted free play. This allows children to become fully involved in meaningful experiences.	Children need at least 45 to 60 minutes of self-chosen free play indoors and outdoors throughout the day, to initiate and sustain their play.
Get to know each child and his or her interests, and then offer children play choices, based on their individual interests.	Try: "I know how much you like to explore. Would you like to hunt for treasures at the sand table?" rather than "Find a place to play."
Use visuals to communicate expectations to children.	Label toy bins with pictures or photographs of items that belong there.
Minimize the number of **transitions** during the day to reduce the number of times children must change activities.	Provide a teacher-guided learning experience as one of the available choices during free playtime. Allow children to come when ready and leave when finished.
Give notice before there is a change in activity. Avoid abrupt interruptions so children can prepare for the transition.	Try: "When we are finished singing, it will be time to play outside." Then try: "After this song, we will put on our sun hats for outdoor time."
Give jobs to children to help with the transition.	Children can set the snack table, sweep up the sand from the floor, or gather the discovery kits before heading out.
Make transitions consistent and fun so children know what to expect and stay interested.	Use songs, rhymes, and finger plays to signal a change in activity.
Encourage children to seek help from peers who can model useful skills and appropriate behaviours.	Provide a partner for a child who has difficulty with transitions.
Allow flexibility during planned experiences.	A child wanting extra time to finish a painting can listen to storytime from the art easel, rather than joining the group on the carpet.
Use cooperative games to encourage positive interactions rather than competition.	Play musical chairs, with a chair for each child throughout the game.

What should you consider when preparing the learning environment and materials?

Strategy	Practice
Provide enough toys and materials for the number of children that may use each area. Do not overwhelm the space with too many items.	Place four sets of dishes in the daily living area that has a table and four chairs; place three shovels at the sand table with other materials.
Have duplicates of popular toys available to reduce waiting time, especially for children who are not developmentally ready to share.	Provide two or three fire trucks in the block area; place three or four riding toys in the active play area.
Display toys and materials so children can see and use them independently.	Place items on open shelves at the children's level.
Offer many open-ended materials that have a variety of uses, to reduce children's frustration.	Provide loose parts such as wood pieces, cardboard boxes, tubes, fabric, and clay, so children can play and experiment with them.
Allow children to use toys and materials in more than one area to deepen and sustain their play.	Encourage children who are making playdough cookies in the art area to bake them in the oven in the daily living area.
Create enough space in each area for children to move around easily.	Rearrange shelving to expand the play area if children seem crowded.
Encourage small-group interaction by allowing children to form natural groups.	A small group size that is flexible and based on children's interests promotes positive, genuine social relationships.
Place furniture to define short walkways throughout the room.	Avoid large, open spaces or long, straight pathways that encourage running.
Tone down visuals so the surroundings are calm and relaxing.	Turn down the lights; reduce vibrant colours; and clear clutter from floors, shelves, and walls.
Adjust noise levels to create a peaceful atmosphere.	Occasionally, have soft music playing during quiet times (e.g., during rest time or at the end of the day).

How can you help children develop the skills to solve conflicts?

Children must be involved in resolving their own conflicts, rather than having adults do it for them. Together, children and caring adults are active partners in the learning process. This balanced approach is critical in helping children develop the skills to begin resolving conflicts on their own. When children are aware of how their own actions affect others, they are better able to make appropriate and effective choices to overcome difficulties. Knowing how to react during conflict will help children gain independence, confidence, and self-regulation. Try the steps in the following strategy. These steps are also presented in Appendix N: Strategy for Solving Conflicts. You may wish to place Appendix N in a visible location in your classroom to remind adults about your guidance approach.

Strategy for Solving Conflicts

Strategy	Practice
Approach quickly and calmly to stop hurtful or unsafe behaviour right away.	Stay nearby so children know that you are ready to offer help and support.
Acknowledge each child's feelings with a simple description.	"You seem angry."
Gather information from each child involved.	"Let's talk about what happened. Janelle, you tell me first and then it will be Luke's turn to talk."
Identify and state the problem to the children.	"You both want to sit in the same spot at the table."
Brainstorm solutions with the children.	"What ideas do you have to solve this problem? What else can you do?"
Allow children to develop a solution and use it.	"What idea do you choose?"
Follow up by checking back and offering assistance if needed.	"How is your idea working?"

Positive, supportive guidance strategies create a sense of belonging and increase children's ability to make friends and resolve conflicts. They contribute to children's development and learning and provide the foundation for success in your Kindergarten, your school, and beyond.

If you continue to have difficulty guiding children's behaviours after using these strategies, talk to families about how similar behaviours may be handled at home or to see whether you need to be mindful of other circumstances. Consult your school's resource teacher, your school division's Early Years consultant, or your principal, who can assist you with these situations and identify supports and other professionals who may be available to help, as necessary. Partnerships with families and your school support team can help you to help children with these occasional challenges.

Summary

In this chapter, which focused on strategies for teaching and learning, you read about how to select and use a variety of screening and assessment tools. This chapter also addressed how your observation, reflection, and documentation strategies are the most powerful ways to help you review, support, and promote children's learning across the continuum of early childhood development. You considered how to use inquiry-based learning and backward design as you plan learning experiences for and with children in your Kindergarten classroom. In the following chapters, you will consider how these intentional strategies can be applied through the design of your Kindergarten learning environment and through your approach to curriculum.

Continue Your Learning

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For additional information about analyzing pedagogical documentation, see:

Government of Ontario, EduGAINS. "A Protocol for Analysis of Pedagogical Documentation." *2014 Spring Training and Capacity-Building Sessions.* <www.edugains.ca/resourcesKIN/PLF/DesigningOpportunities/ProtocolforAnalysisofPedagogicalDocumention.pdf> (31 July 2014).

Chapter 5:

Designing the Learning Environment

Chapter 5: Designing the Learning Environment

Guiding Principle: The Environment

The Kindergarten environment allows complex, rich play to thrive. It is a warm and inviting place where children and adults inquire, learn, and co-construct together.

Children's natural curiosity and inquisitiveness are nurtured in learning environments that encourage active, explorative play and sustained peer interactions. The Kindergarten environment—including its physical, social, and organizational qualities, both indoors and outdoors—plays an integral role in children's learning.

Teachers create a multi-sensory, enabling environment that supports emergent literacy and numeracy. They recognize children's different learning styles and many ways of knowing. Children benefit from repeated opportunities to represent their ideas through playing with blocks, engaging in dramatic play, documenting, writing, painting, and drawing. Children make choices and engage in play in a rich learning environment designed to extend and build upon their interests and the Kindergarten curricular goals. The environment reflects the diversity of the children, their families, and their communities. Teachers value outdoor play, recognizing its potential for the highest level of development and learning in young children.

"In order to act as an educator for the child, the environment has to be flexible: it must undergo frequent modification by the children and the teachers in order to remain up-to-date and responsive to their needs to be protagonists in constructing their knowledge" (Gandini 177).

Guiding Principle: The Schedule

Kindergarten scheduling is responsive to children's changing needs, allowing a developmentally appropriate curriculum to emerge over time.

The daily Kindergarten schedule includes at least one hour of child-directed, adult-supported playtime to allow for deep and engaging play experiences. Outdoor play is a regular part of the child's schedule.

Typical routines of the day are used as learning experiences, and teachers maximize *teachable moments* as they occur. Teachers adjust the flexible schedule to meet the needs of individual children or to allow productive play to continue a little longer. They deliberately reduce transitions in length and frequency. Teachers take a long-range view of the schedule, knowing that inquiry-based learning and a project-based approach cannot be rushed or compartmentalized.

Four Dimensions of the Learning Environment

The learning environment in your Kindergarten classroom reflects your values and your image of the children you teach and of learning itself. The Kindergarten learning environment should be open, inviting, and interesting because it affects both the atmosphere and expectations for learning. When designing the Kindergarten learning environment, "we need to think about creating classroom environments that give children the opportunity for wonder, mystery and discovery; an environment that speaks to young children's inherent curiosity and innate yearning for exploration in a classroom where children are passionate about learning and love school" (Heard and McDonough 8).

Imagine the learning environment in your classroom as being composed of four dimensions (Nash 6):

- **Temporal (time):** The way you manage your schedule and your available time with children in your class.
- **Space:** The physical dimensions of your Kindergarten classroom.
- **Things:** The resources found within the environment, including toys, furnishings, learning centres, props, books, and other materials.
- **People:** The peer group and adults who interact within the environment and the larger school in which the Kindergarten classroom is located.

As you read about each of these dimensions of the learning environment in this chapter, try to imagine how children in your classroom experience that dimension personally and what changes, if any, you are inspired to make.

Time

Some Kindergartens operate the full day, every day, while many in rural Manitoba operate the full day, on alternate days. However, the majority of Manitoba's Kindergartens operate on a half-day basis, five days a week. Half-day Kindergarten must still allow children a relaxed atmosphere where projects unfold over a period of days and where rich socio-dramatic play with many chances for communication and collaboration can occur. Manitoba's Kindergarten curriculum is designed for a half-day Kindergarten schedule, so teachers can relax into the time frame within which they work, without feeling the curriculum demands are the reason to over-structure the day or to leave free play until all the "real work" is done.

Developing a Classroom Schedule

Try to organize your daily and weekly Kindergarten schedules to reserve extended blocks of time for children to engage in sustained play, investigation, exploration, and interaction (with adults and peers). As you observe children while they play, you will notice that not everyone is doing the same thing at the same time; instead, some children move quickly from one interest area to another, while others can easily spend all day on a single exploration. Remember that the most important variable

in your Kindergarten learning program is not the length of the day, but the quality, variety, and developmental appropriateness of the learning experiences that children find there. Uninterrupted blocks of time encourage children to engage deeply in playful learning. Try to develop a schedule with large blocks of time that are flexible, involve minimal transitions, and can accommodate investigations and project-based learning and promote children's task orientation. Think about a balance between teacher-directed and child-initiated times, while ensuring that the length of time in teacher-led activities remains developmentally appropriate. Use extended blocks of time to rotate through the room, interacting with individuals and small groups, and help children move forward by scaffolding on their learning.

The Elementary Teachers' Federation of Ontario (ETFO) recommends that within your daily plans, you account for differentiated learning by planning experiences for the large group, for small groups, for individuals, and for classroom centres. Whether you have a half-day or full-day schedule, aim to include a time for the following (ETFO, "Daily Planning"):

- physical activity (in your classroom, outdoors, in the gym, or in the multi-purpose room)
- a circle or large-group meeting that facilitates time for sharing, stories, and introductions to new materials in the classroom, or new learning experiences
- learning centres, including large blocks of time for self-initiated "child-choice" activities
- nutrition and rest, as needed
- children "reading" books independently
- music and movement

For half-day and full-day schedules, see Appendix O: Sample Schedules.

The National Association for the Education of Young Children recommends that child-initiated learning times must be long enough to allow children to engage deeply in learning with their friends and the materials in the classroom. The time for child-directed playful learning should be at least 45 to 60 minutes (Copple and Bredekamp, *Developmentally Appropriate Practice* 222).

In one rural Manitoba school division, some schools timetable 50-minute blocks. One school combines two 50-minute blocks so that teachers have 100-minute blocks to work with. In Kindergarten, this allows for literacy time, uninterrupted play, integrated thematic units, and so on. The "first 100 minutes" preserves an uninterrupted chunk of time, with no pullouts for gym, music, or library time, and reduces the need for too many transitions. This type of child-centred approach to the timetable helps Kindergarten teachers to meet the recommended 45 to 60 minutes of child-initiated play for children.

Consider balancing quiet and more active play for children, time for outdoor and gross motor play, time for snacks and rest, and of course time for whole-group, small-group, and individual time with you as their teacher. In addition, you may need to factor in time for physical education/health education, library activities, music, and school-wide events. A good rule of thumb is to use the first part of the day for activities that require more focus, especially early in the school year when children may be physically and mentally exhausted by the day's end.

When you think about the organization of your Kindergarten, it is a good idea to begin with the time dimension of your environment. A young child's concept of time differs from that of an adult's, and some children in your classroom may have more "time knowledge" than others, depending on maturation and experience. Children's prior experience in preschool programs may have provided them with opportunities to develop a sense of time as they experienced a schedule somewhat like that of Kindergarten—with arrival and departure framing playtime, rest time, circle time, art time, outdoor time, snack time, and so on. Experienced children may respond to the Kindergarten schedule comfortably. Others will learn about this feature of school life through their time with you in Kindergarten. A special event (such as a birthday party or a field trip) and familiar repeating patterns (such as library time once a week or shared writing time each afternoon) provide children with the chance to hold onto something temporal, which helps develop their concept of time.

While a schedule is a reality of Kindergarten and, indeed, of life itself, flexibility in time scheduling is essential. Teachers should concentrate more on task development than on task completion within a particular time frame. Overscheduling, overly strict routines, and frequent transitions with concurrent cleanups can often sabotage rather than encourage children's constructive use of time.

Children flip over the card representing "today" during their circle time, which helps them to visualize the passing of time.

Sensitive teachers work toward establishing a routine that offers children the comfort of predictability during their time at school. For many children, consistency helps them feel safe because they know what to expect next, and the routine becomes a support for their growing self-regulation. The flexible schedule that includes large blocks of uninterrupted time lets children relax enough to become completely engaged in their learning and to develop task orientation. It also allows you enough flexibility to respond to teachable moments as they present themselves. Encourage children's sustained interest, watch to see what absorbs them most, and demonstrate

respect for children's choices. Value the learning they do while playing. Stress-free routines and schedules help support children's learning.

Visual schedules, which are often used for children with exceptional learning needs, benefit all children by helping them to anticipate what happens next during the day or to note something special, such as music time or library time. Remember that your routines support risk taking, cooperation, and development of personal identity, and help you to build a respectful community of learners who can articulate who they are and what they can do. Moving away from a clock-driven teaching practice and toward a values-based pedagogy is recommended.

The Language of Time

While many teachers incorporate a daily calendar time into their circle experience, it is not always presented in a developmentally appropriate way and, in fact, may not be necessary at all (Beneke, Ostrosky, and Katz). Simply reciting the days of the week or the date of the month by rote does not link the calendar symbol to the concrete experience of time passing in a way that benefits most children. Instead, look for ways to link terms such as *today*, *yesterday*, and *tomorrow* to something observable and concrete, such as the weather. As part of a science inquiry, for example, children can track seasonal changes and weather variations from day to day, make predictions about what type of weather they might expect for tomorrow, record their observations using graphs (e.g., sunny, cloudy, rainy, snowy), and deepen their understanding of the passing of time.

An amarillys inquiry allows children to predict, estimate, measure, and record changes they observe.

Beneke and her colleagues suggest the use of picture schedules, which help children to develop a better understanding of the sequence of events. You can create a linear representation of time, for example, by adding a cube to a stack of interlocking cubes to represent each additional day in school. You can introduce estimation games, paired with children's inquiries, to help them understand the passage of time. For example, children can guess how long it might take them to walk quickly across the playground, and then carry out the activity using a stopwatch to see how fast it actually takes. A wonderful way to support children's predictions and estimations is to have an amaryllis bulb growing in your classroom in winter. Children can measure new growth each day and add their measurement to a graph, marking the passage of time in a dynamic way. Your project-based learning approach can help children develop meaningful understanding about time passing by. As discussed in Chapter 4, documentation displays can be used to help children "capture" their learning and to support time-related vocabulary.

Use teachable moments to introduce and practise the "language of time" as you carry out Kindergarten learning activities. Use words such as *soon, later, early, yesterday, today, tomorrow, next week, morning, noon,* and *evening,* and link your use of these words to real experiences to help children make sense of these words. (You might use calendar time to address Kindergarten learning outcomes from social studies [KH-018: Distinguish between yesterday, today, and tomorrow], as well as from science, English language arts, education for sustainable development, and other subject areas.) Keep in mind that the exact time of day is far less important for most children than it is for adults. Young children live in the moment much more than their teachers do. For example, during block building, children may be intensely focused upon a new discovery, showing remarkable concentration, self-regulation, motivation, and creative thinking. Suddenly, due to the demands of the schedule, we interrupt their *flow*, call out a cleanup warning, and push children to move to another activity. Should we be surprised when some children are reluctant to put away their blocks according to our timelines?

Rest Time

To support children's development of self-regulation, intentionally plan for quiet times in the flow of the day and quiet places that support this important developmental goal. Planning for quiet time to rest busy minds and bodies is really important, especially in full-day Kindergarten or early in the year for half-day Kindergarten.

A child-sized tent with soft pillows provides a quiet place to withdraw and rest privately with a favourite storybook.

Rest time provides a choice for children to close their eyes for a few minutes or to read quietly to themselves. Try to think about ways to create an atmosphere that supports a restful time. Dimming the lights, playing soft classical music, and reading aloud from a chapter book as children make pictures in their minds may be strategies you are already using. As the school year unfolds and children mature, they may not need an actual nap or rest time, so by observing the children in your class carefully, you can adjust the nature of the rest period in a developmentally responsive way. However, the mood for a rest time each day can be set at the beginning of the year and will become part of a daily routine that children can anticipate and relax into.

Kindergarten children work hard physically, emotionally, and psychologically while they are at school, and being part of a large group is often a new and somewhat stressful experience. For some children, the need for a quiet space or a privacy spot where they can withdraw from the hubbub for a short while is a real and legitimate need. Think about where in your classroom children can find a spot for comfort and privacy. You can easily create these cozy spots by using a child's tent, painting an appliance box and cutting out windows and a door, or simply placing a tablecloth over a table so children can retreat underneath. Place soft cushions and stuffed

animals inside the quiet area, and instill a routine that offers the space for one or two children to play quietly, look at books, reflect, relax, listen to music, or share stories.

Encourage children who are having a rough day to use the special quiet area to calm down, think, relax, or problem solve. Encourage all children to respect their friends' need for some privacy.

Circle Time

Many teachers like to start their day with an initial circle time, "carpet time," or opening meeting, where adults and children can plan their day together. This whole-group time supports the development of your caring community and gives children the opportunity to interact with each other and with you. You may use this time to set the stage for exploration and discovery, by presenting new information and introducing a new learning centre or other new materials. As you plan for circle time, consider how you can include all curricular areas, including arts education (dance, drama, music, and visual arts), language arts, mathematics, science, and social studies. When you integrate learning across the curricular areas, you help ensure your circle time is relevant to children's daily lives.

Language Development during Circle Time

Circle time provides excellent opportunities for EAL children to develop their English language skills. For example, if your goal is to help a child focus on verbs, consider using a gesture or a specific word that cues the EAL learner to watch or listen to you carefully. Consistent use of phrases such as "What did you see me do?" or "What did he or she do?" followed by your use of a sentence frame that says "I saw you_____," would help to scaffold on that child's language development during circle time (Buhrow and Garcia).

As part of the circle time, you may encourage children to reflect on what they learned yesterday or last week, and to decide how they plan to continue their learning today. For example, you could share with children the digital photos you took earlier in the week to support their reflections. This plan-do-review sequence is another important part of the daily routine and builds children's *metacognitive* skills. During this circle time, you are modelling oral language and helping children to organize their own thinking and learning. As the children take turns, they are further developing their self-regulation and social skills.

Some teachers end the day with a closing circle or final meeting where they encourage children to reflect on what they have done at school that day and what they might like to do tomorrow. The children may bring samples of their work to the circle to help them along. Teachers can probe a little further, asking children questions that extend their learning and link back to the plans they made at the start of the day. Some helpful questions are:

- What did you learn today?
- What will you do tomorrow?
- What went well?

- What could you change for next time?
- What will you continue?
- What will you need?

These conversations help the teacher to adjust plans, think about what additional materials or props might be added to the environment for tomorrow's learning, and what types of research are needed to prepare to support the children's learning.

How long is a circle time experience? While this may vary somewhat, based on the classroom and the makeup and prior experiences of the children you teach, consider the language development of the children in your class when determining the duration of circle times. Generally, for younger children (Junior Kindergarten), a 5- to 10-minute circle time may be enough. Early in the school year, Kindergarten students may enjoy a 10- to 15-minute circle time, while by the end of the year, most will manage a 20-minute circle time. However, your circle should also meet the needs of kinesthetic learners, so make sure it includes the chance for some movement through exercise, yoga, dance, or games (such as Simon Says). Generally, it would not be considered developmentally appropriate to have more than 20 children in a large group all listening to a teacher and being drilled on the alphabet, numbers, the calendar, and so on. Avoid situations that require all children to be doing the same thing for too long. Use small-group learning experiences to teach important concepts, and differentiate your instruction accordingly.

Snack Time

Young children in school have physical needs, such as the need to rest and to refuel with healthy snacks partway through their morning and afternoon, and with healthy lunches in full-day Kindergarten.

Teachers handle snack time in a number of ways. Some teachers have moved away completely from the typical whole-group snack time to an independent choice snack centre where children choose to eat their snack when they feel hungry. Some teachers schedule snack time just before or after recess. Others use the recess itself for children to have snack time under the supervision of an educational assistant, while the teacher has a break. However, children also need some outdoor active time, so setting aside one need to serve another may not be the best choice for all children. In some classrooms, children bring their own daily snack from home. Other teachers make healthy snacks with children as part of their cooking or food science experiences. One Manitoba teacher has made an arrangement with a local group to have its members bring in a daily snack for the two Kindergarten classes. Another teacher creates a special shared time as children eat quietly while she reads to them from a chapter book. What do you do?

When children and teachers "break bread" together, mealtime rituals in the class are established. However, snack time is not just about eating. Snack time should be a stress-free, pleasant, and culturally appropriate occasion, and provide an environment for social learning, peer-to-peer conversations, and positive interaction to occur. Plan at least 10 minutes for children's snacks, keeping in mind that some children may need more time.

Placing a plastic tablecloth on the table provides a visual signal to the children that now it is mealtime rather than puzzle or playdough time. It is one simple way to help create a special mealtime atmosphere.

A small group of friends eat their snack together at a self-regulated snack centre.

For snack times or mealtimes, think about invoking a family atmosphere where people enjoy sharing highlights of their day with one another. Providing children with opportunities to have conversations with each other and with you, trying new foods, or enjoying the cultural foods they bring from home are great ways for children to expand their perspectives. Children practise healthy living and self-help skills as they wash their hands before eating, pour water or juice for each other, and clean up after themselves.

Be mindful of children's allergies and potential allergy triggers. School-supplied snacks should be nutritious food choices. Teachers can talk to children about what makes a nutritious food choice and share information with families as needed. If you sit with children during snack time, rotate your position during the week so that different small groups have the chance to have you at their table.

Space

Manitoba Education and Advanced Learning recommends a physical space for Kindergarten classrooms that is of sufficient size for the exploratory and kinesthetic learning undertaken by young students. When new schools are built, Kindergarten rooms are a standard 93 m^2/1000 sq. ft., but when enrolment ranges from 10 to 15 students, the room size may be reduced to 70 m^2/750 sq. ft. When enrolment totals 9 or fewer students, the room size can be further reduced to 46 m^2/500 sq. ft. In a combined or multi-age class involving Kindergarten and other elementary grades with enrolment of at least 15 students, the room size is 80 m^2/860 sq. ft. If the enrolment is fewer than 15, the classroom size is appropriately reduced. In Manitoba's current space standards, the Kindergarten classroom also receives up to 150 sq. ft. of ancillary space for storage, typically adjacent to the classroom (Manitoba Education, Citizenship and Youth, *School Building Space Standards* 12).

Your Kindergarten classroom should provide safe, pleasant, functional, and stimulating surroundings so that children have many opportunities to play and learn, both independently and with each other. Young children need ample space. In general, most Early Years teachers feel the need for more floor space than can be provided by a classroom built for regular classes. The integrated, child-centred, active learning approach calls for space for a variety of learning centres, for large- and small-group work, for quiet carpeted areas, and for tiled areas that allow for play with water, sand, paint, and other messy materials.

Children play in a safe, pleasant, functional, and stimulating classroom.

Since young children are active learners, they need and deserve freedom to move, which means that your Kindergarten students do not require assigned seating. Children do benefit from a locker or "cubby" for their own personal possessions. Kindergarten equipment and supplies also require adequate storage space. Innovative school teams, however, cooperate in meeting this requirement in a variety of ways, and resourceful and creative teachers find many ways to make the best use of classroom design and size.

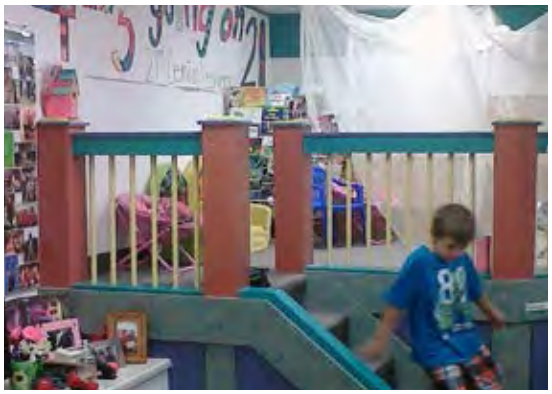
The Classroom

Art is often taught in the regular classroom, yet teachers do not always see the classroom itself as an exercise in design. Your classroom should be welcoming and interesting without overloading the visual circuits. Ensure that your classroom has different areas for different types of learning experiences, and that table placement is flexible to accommodate those experiences. The child, like the adult, is highly influenced by the physical environment; therefore, evaluate the learning space with the same consideration you give to your lesson plans so that it works with your educational programming goals, and not against them.

We have a tendency to lay out our classroom furnishings on a grid with straight lines and rows of tables, but it can be far more visually interesting and functional to angle the carpet and set the tables askew. By using this setup, you also avoid creating open "traffic lines" for children to run along. When you place furnishings around the perimeter of the room, you actually close in the space, rather than opening it up. Instead, think about creating pockets of learning for individuals and small groups with the strategic placement of your library and learning centres. Think about the placement of your own desk and storage area, and where you will keep your supplies. If your space does not seem functional, try shifting it around until you find the arrangement that works for you.

Natural materials such as bamboo curtains, rattan or seagrass baskets, and plants all help to define learning zones. Place bamboo sticks (two metres high) into a floor vase or a flower trough with stones in its bottom to create a simple visual divider that can be easily moved. Dividers can also serve as storage units for baskets.

Plants help create a natural barrier between learning centres.



In this blended Junior Kindergarten/ Kindergarten classroom, the loft provides a quiet space to look at books or work with tablets. A swath of sheer fabric provides children with a sense of privacy and coziness, while still facilitating visual supervision.

A child practises the steps coming down from the loft.

The Kindergarten classroom can be organized with various traditional play centres, such as sand and water, blocks, library, dramatic play, and visual arts centres. The classroom will include changing interest centres or temporary centres that relate to specific emergent learning goals. Discovery centres are deliberately designed to extend scientific and mathematical inquiry. To reduce noise, and to keep traffic flow manageable and mess under control, try to position noisier or messier play zones close to one another (e.g., place the dramatic play centre near the block centre, or place the creativity centre close to sensory tables). Place quieter zones (e.g., the manipulative centre and library or book centre) away from noisy play areas. You can read more about the various play centres in Chapter 6. To encourage small-group interactions, incorporate room dividers to help create smaller nooks where a few children can play, while still allowing for visual supervision.

The example of a Kindergarten layout in Figure 5.1 gives an inspiring visual representation of how the various play centres, student cubbies, teacher work area, and whole-group space can be set up in your classroom based on the recommendations found within this Kindergarten support document.

Figure 5.1: A Kindergarten Classroom Layout to Inspire*

* Source: Copyright © 2014, the Government of Manitoba, represented by the Minister of Education and Advanced Learning.

Children and Aesthetics

When we discuss children's growth, we do not always consider their aesthetic or spiritual development, although this is an important part of who they are. Children often respond intuitively to beautiful items; however, keep in mind that beauty is truly in the eye of the beholder. Plants, shells, crystals, prisms, and many found items such as button collections can reach into children's hearts and spirits.

"According to Montessori, knowing how to arrange an interesting, beautiful environment for children is as much a part of teaching as knowing how to select fine children's books for the library" (Mooney 27).

Reduce clutter in your classroom by clearly labelling and storing materials and resources that you and the children need. Some teachers make the clutter disappear with the use of curtain panels attached to the tops of storage shelves (with hook-and-loop fasteners, such as Velcro) or hung on rods, so that they can be easily removed or moved to the side. Many classroom walls are covered with commercially produced (and often quite expensive) bulletin board displays, banners, posters, nameplates, trimmers, letters, calendars, charts, number lines, and more. Try to reduce your use of prefabricated commercial products and aim to achieve beautiful spaces that have meaning to the children. Not only are the commercial charts and posters expensive, but children also pay closer attention to displays they have made themselves. Thoughtfully display children's artwork, prints of famous art, and beautiful artifacts from the cultures represented in your classroom and in Manitoba.

Clutter disappears behind curtain panels; softness of furnishings and wall colour with pops of bright colour help create an aesthetically pleasing and comfortable space.

A table lamp adds a homey touch and reduces the need for fluorescent lighting.

Limit the amount of visual display so that children have white space on which to rest their eyes. This can be especially important if your group includes children with sensory challenges, as too much clutter and visual stimulation may hamper children's ability to self-regulate.

Think about your classroom lighting. Research shows that good lighting contributes significantly to the aesthetics and psychological character of the learning space (Dunn et al.). Many children and adults are negatively affected by fluorescent lights that shine on them all day, so an ideal classroom benefits from natural

lighting, with a skylight or windows. Natural light is the most desirable light, for children and adults. A model classroom has windows with low sills that frame interesting views and that can be opened for fresh air. Adjustable blinds or curtains can be used to control natural light for rest time and for relief in hot weather. Placing small table lamps or pole lights in various areas of the classroom can help mediate dark winter days without the need for overhead lights to be on all day. Think about the best type of lighting for the areas of your classroom. For example, the writing centre can be supported with focused task lighting, like a desk lamp at home. The dramatic play area's exuberance is better supported with bright clear lighting, similar to what you might have in your own kitchen. Try to match the kinds of learning experiences with the types of lighting you select in an intentional way.

Bring plants, fish, and animals into your classroom, as these also help to soothe children and provide an opportunity for them to exercise responsibility as they care for living things. Watching fish gently swimming in water offers children a feeling of tranquility. As plants flourish and grow in the classroom, children experience important first-hand learning about nature. Be aware of any allergies among the children in your classroom that may have an impact on the inclusion of living things.

Remember that outdoor playing and learning, especially in natural environments, develop the mind, body, and spirit of the child.

Many classrooms have natural displays for children to touch and explore.

Exploring transparency and light using a repurposed overhead projector.

Exploring culture and identity.

A rabbit adds to the classroom learning environment and is set free to visit during free play time.

Comfort and Relaxation

Regardless of whether children attend a half-day or a full-day Kindergarten, they work hard at school and need furnishings for comfort and relaxation within the classroom. Clearly defined cozy spaces offer the respite and comfort of softness where children can lounge, think deep thoughts or daydream, play quietly, or read, as they choose. In many classrooms, children sit on the carpet or on carpet squares during circle time, but some classrooms also include soft furnishings such as loveseats or child-sized sofas. These spaces are also available to children who want a quiet spot where they will be not be interrupted by their friends' more active play at certain times of the day.

Think about other ways to add softness, warmth, and comfort to your classroom environment. Items such as area rugs, beanbag chairs, big corduroy floor pillows, blankets for creating hiding spots or tents, stuffed animals, cushions in the dramatic play area, swaths of airy fabrics, soft dolls, and puppets all help to deinstitutionalize the Kindergarten classroom. These items also reduce noise and echo, and help to make the space feel a little more like home for young children. Other ways to soften the physical space of your Kindergarten classroom might include intentionally creating conversation areas, adding colourful prints in inexpensive frames, and placing silk flowers in a vase. Invite parents to contribute family photographs of their children with the people who love them for display in the classroom, or to share cultural artifacts to add to the ambience of the classroom.

Pillows and a beanbag on a 100-square carpet help soften the classroom space.

A beanbag is a favourite place for relaxing and playing.

Room for You

Do you have a desk and a chair in your Kindergarten room? How often do you actually sit down at your desk while the children are with you? Does it tend to be full of clutter and stuff, leaving little space for you to sit and work at in any case? Think about how a desk fits in your room, and what it contributes to your pedagogical approach. Think about the valuable real estate a desk occupies, and what you might place in that spot, instead. If you are short on space, you may find you can remove it without much hardship.

A teacher shelf has replaced the need for a desk.

Of course, you will still need space to store your own personal possessions, but many creative Kindergarten teachers are finding alternatives to desks. One of these is a shelf dedicated for "teacher stuff" that is placed just above the height of children's heads to double up on space. Consider other possibilities. Move your computer close to your interactive whiteboard. Place guided reading materials near the table where you meet with small groups of children. Place a wicker "work basket" in a visible spot where children can easily drop off notes or work for your review. Use a filing cabinet to keep important papers. (Do you really need all those paper files, with so much information being stored electronically?) Make sure you have several comfortable adult-sized chairs. You might include an armchair or a rocking chair in your reading area, and a chair on wheels on which you can scoot around while children are engaged in small-group explorations. There should also be some high cupboards or a closet for your use, a place where you can store materials that are used infrequently or that require direct supervision.

Things

The importance of play to children's learning is emphasized throughout this support document. But what kinds of quality materials best support children to play and learn with purpose? What you choose to place in your classroom, or remove from it, is an important indicator of your intentionality. If you survey your room with a critical eye, do you notice pieces of furniture that are shabby and chipped? Where do children see themselves, their families, and their community reflected in your classroom? Where do they experience beauty? What supports children's emerging literacy and numeracy in authentic ways? What supports their independence and choice making? How do the "things" in your environment reflect your view of children, and of teaching and learning?

Early Childhood Furnishings

As early childhood activities are action-oriented and largely individualized, furnishings must be safe, portable, light in weight, and child-sized. Floors, walls, and ceilings should absorb sound. Where possible, Kindergarten classrooms should be located on the ground floor, with windows at children's eye level. A sink in the classroom and easy access to washrooms with low toilets and wash basins are great assets to the Kindergarten classroom.

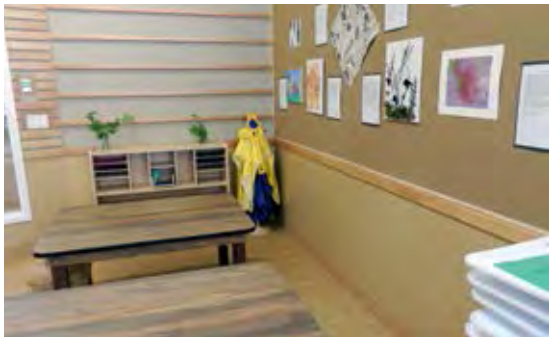
Children wash their hands after messy play or before meals.

Since you are designing your classroom to allow for children's movement, it is not necessary to provide a table and a chair for each child; a dozen light stacking chairs and six or seven stacking tables should be ample. Aim for fewer desks and items that have limited use, and make room for open, flexible spaces and furnishings. Some Kindergarten teachers choose to forgo chairs completely to reduce clutter and noise from moving chairs from one space to another. Others place tennis balls onto each chair foot to reduce the sound of chairs being dragged around and to protect the floors from scuff marks.

(L) A rocking chair is helpful for highly active children.

(R) Children kneel as they work.

Some children benefit from opportunities to sit on special chairs, seating discs, or "wiggle" cushions with kinesthetic properties. You may find that these are helpful for children who are very active, or those who have sensory processing, physical, or focus challenges.



This art area includes accessible shelving for supplies, hooks for smocks, bulletin boards to display children's art and documentation, and a drying rack (in the bottom right corner of the photo).

Easily accessible built-in storage space for use by the children is a necessity. Each child should have a clothes hook and a shelf or locker space for shoes and other personal items.

Because sensory play is a prime way through which young children learn, sand and water areas are essential parts of an early childhood learning environment. All Kindergarten classes need a sandbox and a water table in the classroom or in an adjoining indoor space. A sandbox lid can also be used as a

surface for drying paintings, or as a flat surface for playing with puzzles or with small manipulatives. Since creating artwork is a regular feature of Kindergarten, you may choose to have a drying rack close to your art easels or the visual arts table for drying children's paintings.

Sensory play can be facilitated with materials other than sand and water. Think about using mud, rice or flaxseeds, snow, cornstarch, fall leaves, Moon Sand, pumpkins and their "innards," playdough, or clay. Recipes for playdough and oobleck or cornstarch magic can be found in Appendix P: Simple Recipes for Children.

(L) Children are deeply engaged in water play.

(R) Girls are gardening using rich black mud.

As an occasional alternative to sand, consider filling your sensory table with rich black soil and gardening tools, add fresh green playdough in clay pots and some plastic bugs, and you are set for a gardening exploration.

An ideal Kindergarten space might include a large climbing apparatus to encourage gross motor play. Some classrooms also make good use of a loft to provide children with experience in climbing stairs and the chance to play and learn in another area or on another level. The climbing structure may have to be set up in the gymnasium or in an adjoining hallway. If space does not allow for a permanent structure to facilitate active gross motor play in the classroom, you can use your existing space in creative ways to offer children movement and physical activity. Set up an obstacle course, play Simon Says, march or dance to music, or move like various animals. Active gross motor play should also occur outdoors as often as possible.

Children's riding toys are parked indoors but are played with outside on a paved surface.

These riding toys are lined up and ready to use.

A large dead tree makes an impressive natural play structure.

The Outdoor Classroom

Richard Louv, in his book *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder,* elevates the importance of children's connection to nature:

> A growing body of research links our mental, physical, and spiritual health directly to our association with nature—in positive ways. Several of these studies suggest that thoughtful exposure to nature can even be a powerful form of therapy for attention-deficit disorders and other maladies. As one scientist puts it, we can now assume that just as children need good nutrition and adequate sleep, they may very well need contact with nature. (6)

As children experience the outdoors, they make discoveries about trees, flowers, the wind, shadows, and so on. When they pump themselves on swings or run down a hill, they explore laws of physics. As they inquire about what happens to the snow as it melts, the puddle as it evaporates, or the wind that blows their kites or streamers, they master many science, physical education, and other learning outcomes.

Remember that

> The world does not need children who fill out worksheets silently and without questions. The world does need children who: notice the world around them with wonder and awe; who are curious and ask "why" and "how"; who are connected to the earth and so take responsibility for it; who, when faced with a problem, have the confidence and security in themselves to think, "I can do this"; who care about the solution enough to come at it again and again from different perspectives, and delight in that process of trial and error and experimentation; who ask others for help easily, and share discoveries excitedly. (Tawingo College)

Connections through Nature

It may be easier for students to make connections between the concepts they are learning and their own life experiences when they are able to experience the concepts in a natural setting. *Indigenous knowledge* is based on the protracted, intimate relationship between an Indigenous community and its traditional territories.

Children in Kindergarten can develop their literacy and numeracy competencies outdoors just as well as in your indoor classroom. A walk outdoors can include nursery rhymes and fingerplays, counting the numbers of trees you pass, and categorizing pebbles you pick up or leaves that have fallen in autumn. You can share stories and legends, or solve problems as you walk to the nearby park or in the forest. All these outdoor experiences help children to see that literacy and numeracy activities, and learning itself, are not only indoor activities; playful learning about language and numbers happens everywhere.

Consider introducing young children to gardening: "Involving children in gardening at an early age gives them the opportunity to develop a sense of wonder about the world and be amazed every day with each new discovery" (Miller 64). Planting a garden with children helps them to understand the growing cycle. Children will also be eager to try foods made from produce grown in their own garden (e.g., plant cherry tomatoes for an early crop before the end of the school year). One Kindergarten class, for example, used the harvest to explore mathematics, lining up cobs of corn from smallest to largest, estimating the number of seeds in a huge sunflower, and creating patterns from

orange and purple carrots. The class also made applesauce from the crabapples that grew on a tree in the yard.

If you do not have easy access to an outdoor learning space, what would it take to create an outdoor environment that offered all the learning opportunities one would typically find indoors in a Kindergarten classroom? The chance to play outdoors is often relegated to recess, but outdoor learning responds to many needs and can offer superior learning opportunities (see Chapter 9). These may include deep learning experiences through socio-dramatic play, discovery and inquiry in mathematics, science, and nature, building and construction, sensory activities using water, sand, mud, and snow, physical development, visual arts, and music. In addition, children have opportunities to extend their critical thinking, discovery, problem solving, and cooperative skills.

An ideal Kindergarten classroom will have its own access to the outdoors so that teachers and children can easily move in and out, and toys and learning aids can easily be moved from one space to another, to make good use of the outdoors for learning. These materials can include paint easels, dramatic play props such as pots and pans for a "mud kitchen," magnifying glasses, clipboards and pencils, and sidewalk chalk, as well as more traditional outdoor play materials such as balls and hoops.

Plan to get Kindergarten children outdoors for active play at a time when the older children are not outside so that they have the chance to master skills without the pressure of older children around them.

(Top) This outdoor classroom is accessed via a door from the Kindergarten classroom.

(Bottom) Children enjoy sliding down a low-grade hill.

Outdoor play should happen in winter, too.

Experiencing Risk

Every day the people we know face different types of risks and challenges. How did they all learn to assess those risks and to overcome the challenges along the way? They began to develop these skills through play in childhood. Many educators agree on the value of exposing children to *graduated risk* (as is developmentally appropriate). Play helps children to develop their physical, cognitive, and socio-emotional competencies, such as self-confidence, emotional resilience, and the ability to assess risk and to take good care. Opportunities for children to play with loose parts outdoors, to challenge themselves and each other, and to learn and flourish in the outdoors are legitimate Kindergarten learning experiences. Many children do not have sufficient opportunities to play freely in the outdoors, as parents may perceive it to be too dangerous, and many children live in urbanized environments without much access to nature.

Girls challenge themselves in climbing and balancing as they search for frogs in some marshlands.

A child uses a real tool to cut dead branches for the shelter being built in the woods (in upper right corner).

Of course, risk and challenge are relative. Your special role in supporting and extending children's encounters with risk is to weigh carefully the benefit of risk, and then to mediate graduated risk through intentional planning (e.g., by ensuring there are enough materials to discourage fighting). The adult role is to remove hazards children do not see, not the risk within the play itself; to be "hazard aware and not risk averse and to employ a sense of perspective when assessing play based situations" (Warden, *Nature Kindergartens* 107–108). For example, children can choose to climb a tree, and decide for themselves how far they climb. You may be coaching, scaffolding, and encouraging children as they try to master new physical challenges: "Offering children a risk-rich environment allows adults to help keep children safe by letting them take more risks, whilst guiding them through a progression of experiences" (Warden, *Nature Kindergartens* 108). You may wish to demonstrate the correct use of a real tool, instead of giving children plastic versions, and then supervise children using a small tool (e.g., a hacksaw) until you are sure they understand the safe way to use it.

Reflection: Outdoor Play

As you reflect on outdoor learning opportunities for your Kindergarten class, consider questions such as these:

- Does your school have an area for outdoor exploration?
- How do you use the outdoor environment to enhance your Kindergarten learning program?
- How do you encourage challenge and mediate risk?

People

Many of the theorists discussed in Chapter 3 describe the importance of social relationships to children's learning. You may not have thought about the social environment in the same way as the more physical aspects of the environment discussed so far in this chapter; however, the emotional climate is very real to young children who can be like little barometers responding to the feelings in the room.

Inclusion of Indigenous Cultures

To feel welcomed and engaged in school, First Nations, Métis, and Inuit children must see themselves and their cultures reflected in the curriculum and in their school community. The physical environment and resources should be inclusive of Indigenous cultures. Programming and pedagogy should include First Nations, Métis, and Inuit perspectives and practices. Parents and community members, including Elders, contribute to children's success when they are meaningfully involved in teaching and learning.

The Social Environment

Because learning is a social construct, the learning environment provides the context in which children make social connections and develop a sense of belonging. Children benefit from the group experience when their environment reflects the individual children, their families and cultures, their teachers, and their peer group, and when intentional teachers plan for ways to build social relationships.

Purposeful social interactions are a vital part of children's learning:

> Children are active, competent learners who learn through interactions with people, objects, symbols and ideas. Teachers do more than simply set up the learning environment, provide time for play and assume that learning will occur. The quality of teacher interactions has a significant influence on children's levels of involvement in learning experiences and their learning outcomes. Through interactions, teachers and children jointly construct learning as they collaboratively investigate, explore and build on ideas and thinking. Through these purposeful interactions, teachers also build connections between children's prior, past and future learning across the day and the Kindergarten Year. (State of Queensland 12)

Starting circle or meeting time with a welcome song that mentions each child by name helps build social inclusion.

Kindergarten children are placed in a large-group situation where they need to develop personal behaviour patterns in relation to both peers and adults. Some children may need your help in recognizing that other people hold different perspectives or points of view from theirs, and that others' rights are equally important. With your support, children learn that to be happy and productive in a social setting, they need to compromise, collaborate, and develop patience in adapting comfortably to new patterns of socialization. Some children also need help in learning the language of social manners, respect, and friendship-making skills. Coaching children to ask, "Can I help?" is one way for them to enter peer play that is already underway.

As discussed in Chapter 10, the home-school connection is especially important to young children. A photo display of children with their families helps build continuity between home and school. Displays such as these honour a child's family, home life, and the local community, and communicate powerful messages of belonging for children and their families. Children enjoy learning something about their teacher's family, too.

The door to this Kindergarten classroom has been personalized with the names of the children and their signatures.

The abilities to manage strong emotions and to relate positively to peers are critical competencies for school success. Kindergarten children may have mastered varying levels of self-regulation. You can support children in their growing ability to self-regulate through your warm and responsive interactions. As you coach and model self-calming strategies, rule following, and task completion, you serve as a co-regulator. You facilitate children's growing ability "to understand, express, and modulate their thoughts, feelings, and behavior" (Murray et al. 3). You can encourage children's "acceptable" behaviours by providing a social setting that encourages authentic opportunities for them to practise their social skills, build their competencies, and take initiative. As children play and learn together, as they learn to manage their small conflicts independently and to enjoy group activities, they deepen their positive relationships with one another.

Depending on their prior experiences, children may need your help to interact happily in groups, to defer satisfaction, and to find pleasure in cooperation and in generosity toward others. Most five-year-olds are moving past the egocentrism of younger developmental stages and are beginning to recognize that they cannot always make decisions based totally on their own needs and desires. The desire to be part of the "we" and for the approval of their peers helps them get past the egocentric "me." Your role in creating a play-based learning environment and an unhurried schedule gives children many chances to experience and initiate cooperative, open-ended interactions with their classmates and you.

Kindergarten children respond well to teachers who are nurturing and responsive. Ideally, mutual respect between children and adults develops in this social environment. Children must feel safe in order to learn, and they develop a sense of self-worth and self-esteem when their physical, psychological, and emotional needs are acknowledged and supported. The adults working in a Kindergarten setting must be perceptive, observant, and ready to guide. You can maximize children's positive behaviour and their interactions with peers and adults through your sensitive and intentional attention to your classroom space; the types of learning experiences you offer; the strategies you use to guide children's behaviour; and the way you develop and adjust your schedule. Teachable moments provide opportunities to explain, to practise a new skill, or to reinforce a skill already being learned, and must be seized as they occur.

Children have generated and written their own rules for circle time.

Children collaboratively complete a large mural over several days. The mural is later displayed in the foyer of their Kindergarten classroom.

Rules to Live By

A few simple rules can be formulated in group discussion periods with children and should be enforced almost without exception. For example, if the group agrees that a tricycle or a riding toy may be used in a designated safe area, then the children should follow this rule consistently.

Create a social climate that helps children feel welcomed and safe and that communicates they are an important part of a group. Messages in the classroom help promote children's feeling of belonging and indirectly guide their behaviour by clarifying and reminding them about expectations. Simple actions such as placing two or three chairs in front of the computer or posting a new provocation at a play centre (e.g., a tadpole observation centre) remind children about sharing, taking turns, and collaborating.

Games and activities that require two or more children to play help encourage peer relations. Taking turns can be further encouraged through strategic placement of timers close to popular activity areas. For example, children can negotiate a reasonable time frame for one friend to have the favourite tricycle with the handlebar streamers before it becomes the next friend's turn. Some teachers have children use a small whiteboard reservation system to sign up for or "reserve" a turn with a popular learning activity. Simple games with rules not only help Kindergarten children develop social skills by encouraging fair play, but also help prepare children for the rules inherent in learning to read (e.g., children may later learn the rule that when "two vowels go walking, the first one does the talking") or the "place" rule in mathematics.

Simple games with rules, such as The Power of Ten, help build children's social skills. What do children need to know to be successful at this game?

Children are engaged in a simple game with rules.

When you provide children with the chance to work together to complete a task, you further enhance group identification and cohesion. Shared learning activities, such as making soup together, creating a large mural collaboratively, or writing a thank-you letter from the class to the visitor from the Humane Society, are developmentally appropriate ways to develop the class spirit. Other events that help build classroom community are daily read-alouds, class book projects, inquiry projects, morning meetings or interactive whiteboard learning activities, classroom celebrations for "100 days," and so on.

Reflection: Games and Social Interaction

When you look around your classroom and the resources you have placed within it, reflect on questions about the materials and their role with regard to social interaction:

- How many children can play a given game or engage in an experience at one time?
- Can more than one child play?
- What teaching is required for the children to learn the game or to use the materials?
- What skills do children need to play the game or use the materials effectively? Do the children have those skills?

Organizing the Classroom

The four dimensions of the learning environment discussed in this chapter (time, space, things, and people) set the foundation for the learning that occurs in your Kindergarten classroom. Organize your classroom before school begins in the fall, and make changes throughout the school year and over the years with intention. Make your classroom and your Kindergarten learning program your own, but at the same time, honour and celebrate the choices children make within your classroom space.

Choice Time

As you organize your Kindergarten classroom, think about how you provide children with choices so that they can take charge of their own learning during the day. Offering this kind of freedom does not create chaos; rather, you are intentionally creating "a safe environment where children's choices are possible and respected" (Wien, *The Power of Emergent Curriculum* 49).

Try incorporating choice time in ways that best suit your groups of children, their interests and needs, your available space, and your own personal pedagogical approach. As you encourage children to make their own choices about which materials to use and which play centres to visit, keep in mind that the way you have set up their learning environment communicates your classroom values, such as collaborating with friends, making personal choices, taking responsibility, and supporting children to focus on what is most meaningful to them. During choice time, you have a special opportunity to build relationships with individual children, observe their progress and document their learning, create informal small groups, and build on teachable moments.

Consider how your classroom space allows children to move easily from one area or play centre to another, offering both physical and academic freedom to choose among many rich learning experiences. Are there spaces that allow for noisy as well as quiet work? Does the classroom have areas for independent play as well as spaces for small- and large-group learning activities? Is your room flexible enough to allow you to change it as needed? And do you use universal design principles to ensure accessibility of materials (availability and visibility) to promote children's self-direction and decision making?

Offer "rich childhood experiences where children can build their passions and attention over time, and use open-ended materials" (Curtis 42).

Kindergarten teachers often use play centres as a way to facilitate children's choice making and playful learning while meeting specific learning outcomes in the Kindergarten curriculum. During choice time, the children choose the centre they will go to and decide for themselves on the length of time they will spend there. Choice time provides a time when children can initiate their own learning and can discover, explore, and practise new and emerging skills. Your environment can provide the kinds of hands-on learning young learners require, but learning centres also foster children's collaboration, cooperation, and communication as they interact socially, solve problems together, learn independently, and engage in open-ended learning activities that are not meant to produce a final product.

True learning centres are not assigned, but are chosen.

Some teachers assign children to centres and rotate them through all experiences in an effort to streamline the process, to ensure all children try all centres, or to focus on a child's specific needs. Keep in mind, however, that in the most effective learning environment, the centres must have an element of choice. Remember that true learning centres are not assigned, but give children an opportunity to choose where, how, and when they want to participate. The provocation or invitation you set out at a learning centre is what draws a child in, so intentional planning for this is critical.

Active play centres are not meant to be workstations full of worksheets for students to complete. Rather, children learn to take initiative and responsibility as they move about the classroom. This type of personal responsibility builds a strong foundation for lifelong learning. Therefore, assigning children to particular learning centres reduces opportunities for children's initiative and responsibility—the main outcome of providing a choice of learning centres.

While you allow children to choose learning centres, you should be observant of which areas are well used and by whom, and which children do not visit certain centres at all. Instead of coercing children to visit a centre, reflect on what kinds of items you might add to the classroom that would be of interest to these children, or whether another centre or learning activity might support similar learning goals. For example, one Kindergarten teacher noticed that boys did not visit the writing centre, although many of the girls spent large

Carpentry pencils have a body with a rectangular or elliptical cross-section, which makes them easier to grip and prevents them from rolling away, and they make either thick or thin lines depending on how they are held.

blocks of time there. When she intentionally added clipboards with graph paper and carpentry pencils, a level, measuring tapes, and meter sticks to the block area, she noticed the boys engaging in writing and measuring activities there, which supported emerging literacy and numeracy development while they built with blocks.

When you plan which areas or zones will be available in your classroom, be intentional about your selections and keep your big goals in mind. These will probably include creating many opportunities for children to develop independence and self-confidence as they make their own choices of where to go and what to do there. Play centres should be open-ended enough to allow children to consider their own inquiries and to make cross-subject connections in a seamless, integrated way. Each play centre should offer children opportunities for learning in natural and authentic ways and for furthering their social skills.

Some teachers use a few moments of their opening circle time each day to review the choices that will be available to the children and to introduce any new provocations that have been added to centres or new learning experiences that will be "open" during choice time. Children may sign up for the choices they wish to try, or they may enjoy reviewing the choices presented to them in picture format. A picture board provides children with opportunities to make choices, as well as to build literacy. In some classrooms, teachers indicate on a chart how many can play in more popular centres. In other classrooms, children are allowed to negotiate the number of participants, but may need your support to do so.

(L) Children place their names under the photo of the centre where they plan to play.

(R) Three choices and a timer.

Some children, especially those with exceptional learning needs or those who have not attended an early learning program prior to Kindergarten, may be easily overwhelmed by too much choice. To support their choice making in a developmentally appropriate manner, reduce the number of options by offering only three to begin with. Consider using a timer for children who wander without settling into one play activity to encourage their task orientation.

As you develop learning experiences for the children in your classroom, think about the following:

- concepts, competencies, and content that children are capable of learning (curricular learning outcomes, children's emerging competencies and their respective zones of proximal development, and ways to scaffold their learning)
- materials needed for both the teacher and the children
- resources available through the community
- ways to arrange the materials in order to motivate the children
- strategies that support authentic assessment and documentation of children's learning (for more information, see Chapter 4)

Scaffolding Learning

When you introduce a new learning centre or when you change a centre significantly with the addition of new materials, your role will likely be more active as you welcome children to this new learning experience. You may need to introduce and demonstrate the use of particular tools, such as hammers or tweezers. As you share different ways to play in the centre, your role modelling will help guide children's learning and behaviour. You may remind children about similar activities they have enjoyed in the past and help them to transfer prior learning to the new centre. You will also be a co-player as you and the children co-construct learning together as you scaffold (but do not over-direct) children's playful learning. As children gain familiarity with the play opportunities in the new centre, you will likely "fade out" the level of assistance you offer to most children in a gradual release of responsibility. This process may look something like this:

I do it . . . We do it . . . You do it.

The Kindergarten curriculum and your ongoing observations of the children in your classroom to identify their interests, abilities, and needs will help you to determine the materials or things you place into their environment. Many ideas about how to enrich your play centres are provided in Chapter 6. As well, the many curriculum guides available through Manitoba Education and Advanced Learning can provide you with detailed descriptions of materials and programming content.

In the following vignette, a teacher reflects on the choices she has made in her Kindergarten learning environment.

Vignette: A Blank Canvas—Creating a Kindergarten Environment*

This year has brought refreshing change for me. After several years away, I have returned to teaching Kindergarten. I have moved into a new classroom space, giving me an opportunity to rethink every aspect of the space and materials that I choose for the classroom. I was a nursery/Kindergarten teacher at the beginning of my career.

In the 1980s, a variety of educational approaches influenced my classroom design. I was influenced by the HighScope approach, which sees children as active hands-on learners, promotes an attractive orderly room arrangement, with an array of organized learning centres full of materials for children to select and use in open-ended ways, and developmentally appropriate environments, routines, and approaches. My interest in the Montessori approach convinced me of the benefits of child-sized furniture and materials arranged with attention to order, aesthetics, and sensory exploration. The approach promoted by Alice Yardley and the British Infant School System influenced my image of myself as an advocate of play, child choice in play, and the value of many interest centres (e.g., reading corner, house centre, sand, water, blocks, art). I was also influenced by what I learned about the Waldorf approach to the use of materials from nature and its strong emphasis on the arts, imagination, and creativity.

These ideas continue to be strong influences for me, but over the past 10 to 15 years, I have studied the ideas of Reggio Emilia with great interest. Reggio Emilia has influenced my practice in many ways, but most obviously in the way I design my classroom space. I see the children in my Kindergarten classroom as full of potential, competent, and capable of building their own theories. I use my environment as the third teacher, provoking wonder, discovery, and creativity. The physical space encourages encounters, communication, and relationships. The arrangement of structures, objects, and activities encourages children's choices, problem solving, and discoveries in the process of learning.

The Kindergarten space at my school is one of the nicest classrooms in which I have taught. The space is large, with two windows and plenty of storage space. During the summer before the school year started, I began planning the basic design and made a list of the areas I hoped to develop in the classroom. Reggio Emilia influences led me to consider the following design concepts:

- creating connections and a sense of belonging
- keeping space flexible and materials open-ended
- designing natural environments that engage children's senses
- provoking wonder, curiosity, and intellectual engagement
- engaging children in symbolic representation, literacy, and the visual arts

"The materials we choose to bring into our classrooms reveal the choices we have made about knowledge and what we think is important to know. How children are invited to use the materials indicates the role they shall have in their learning. Materials are the text of early childhood classrooms. Unlike books filled with facts and printed with words, materials are more like outlines. They offer openings and pathways by and through which children may enter the world of knowledge. Materials become the tools with which children give form to and express their understanding of the world and the meaning they have constructed" (Cuffaro 33).

* Used with permission of a Kindergarten teacher.

(Top L) The classroom as I began to move in. (R) The classroom in the second week of September.

(Bottom L) An old overhead projector is reused for light exploration. (R) A light table is placed in front of a mirror.

I specifically wanted to focus on classroom design that engaged the children's senses. I had not paid as much attention to this idea in designing Kindergarten classroom spaces early in my career. I chose to include a sound-making area, as well as spaces and materials that would allow the children to explore light.

My second priority was to design an environment that would encourage creativity and imagination in every area in the classroom. I chose to remove the typical play stove, sink, and fridge and the dress-up clothes for dramatic play, opting instead to combine the large blocks with dolls, dishes, baskets, play dishes, and yardages of fabric. I hoped that this would open up the dramatic play possibilities from more standard and perhaps somewhat prescribed North American domestic dramatic play material. As children played in this new dramatic play area, I observed them using the materials in imaginative ways. I believe that these more open-ended materials allowed the children to create what they needed for their play. The large hollow blocks could become a car, a boat, a fort, or a sink or stove. The fabric could be used as a tablecloth, a tent, a cape, a gown, or a sari. The possibilities were endless and under complete control of the children.

The classroom space has continued to evolve as the year has progressed, responding to the needs of the group and the interests of the children. It reflects the community of children and adults who inhabit it. It has the warmth of a home-like space. I specifically chose to use found or other cast-off furniture rather than institutional furniture ordered from a catalogue to create this atmosphere. The money saved from not purchasing shelving and other classroom furniture could then be spent on high-quality toys and other high-quality play materials.

I feel happy and comfortable every morning when I walk into the classroom and I hope the children do too. The classroom is organized, aesthetically pleasing, and inviting. The care and thought that went into the classroom design reflects my belief in the environment as the third teacher.

Reflection: Your Classroom Learning Environment

As you reflect on your classroom environment, consider these questions:

- How and where can children select and plan their own activities and learning experiences in your classroom?
- How do you arrange a "provocation"?
- How do you arrange materials to suggest their use? How do you reposition materials to spark a new interest and/or new connections?
- What are the essential materials, furniture, and equipment in the Kindergarten classroom? What changes would you like to make in your own classroom?
- What are the influences on and who are the influencers of your own classroom design?

Summary

Chapter 5 introduced you to four dimensions of the learning environment: time, space, things, and people. Chapter 6 focuses on learning centres and how they support Manitoba's Kindergarten curriculum.

Continue Your Learning

For more information about the learning environment, see:

Greenman, Jim. *Caring Spaces, Learning Places: Children's Environments That Work*. Redmond, WA: Exchange Press, 2007.

Rivkin, Mary S. *The Great Outdoors: Advocating for Natural Spaces for Young Children*. Washington, DC: National Association for the Education of Young Children, 2014.

Chapter 6:

Learning through Play

Chapter 6: Learning through Play

Guiding Principle: The Learning Program

The Kindergarten learning program provides many opportunities for child-initiated play supported by engaged and intentional teachers, in balance with more focused experiential inquiry guided by teachers.

Children's Kindergarten experiences help to shape their motivation and approaches to learning. Since children learn through play, their teachers offer rich, holistic, inquiry-based, playful learning designs and environments and use cross-curricular integrated instruction that responds to children's development and interests.

Learning/play centres* and interesting materials to work with help children to experience joy and wonder in their Kindergarten experiences. Learning centres may be implemented for the purpose of exploring new ideas and concepts, providing strategic instruction, or giving time to practise and consolidate new learning. While at learning centres, children learn through play, make their own inquiries, and further develop their independence in making choices, problem solving, time management, and personal responsibility.

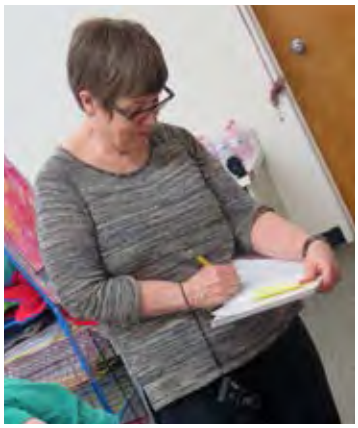
The Rationale for Play Centres

According to the National Association for the Education of Young Children, a play-based Kindergarten classroom is filled with learning centres that promote free play and children's choice. At the same time, intentionally planned centres can promote the provincial curricular goals through the types of materials that are present and the types of learning they invite. The learning landscapes in many Manitoba Kindergarten classrooms include play centres that promote many rich contexts for children's play-based learning, explorations, and holistic development. Some teachers may interpret time for learning centres as time for teacher-directed activity. However, true play centres are freely chosen by the children, embrace children's choice and self-direction, and foster collaborative processes or inquiry (as discussed in Chapter 5). Learning takes place everywhere and is not limited to a centre.

Choice time at learning centres offers children "a powerful opportunity to develop independence, risk-taking, perseverance, initiative, creativity, reasoning, and problem-solving—the 'learning to learn' skills" (Gullo 62), which "are the skills that children need to succeed in school and in life" (Elementary Teachers' Federation of Ontario "Learning in Centres" 4). During choice time, your role is to provide supportive environments and to interact sensitively with your students. Choice time offers you opportunities to gather important information about children's prior knowledge, their developing skills, their attitudes to learning, and how they express and construct their knowledge. These authentic observations allow you to differentiate instruction while you interact with children individually and in small groups.

* In this document, the terms *play centres* and *learning centres* are used interchangeably.

As discussed in Chapter 2, developing strong oral language skills is one of the most important tasks for the young child. Talking, questioning, drawing conclusions, and making inferences should be part of the learning occurring *in every play centre and in every learning experience of the day*. Children should be improving their listening ability, learning to follow directions, becoming curious about the written word, and feeling the desire to write things for themselves. Language and thinking are closely related, and, as an astute teacher, you will take advantage of opportunities to encourage children to do their own thinking and to express their own thoughts.



During exploration time, an intentional Kindergarten teacher circulates the room, taking photographs and making notes in her journal about children's learning.

Think of your literacy and numeracy goals and be strategic and intentional about how you can address cross-curricular goals through your play centres. The centres should provide many opportunities for children to write, count, and represent.

The number and types of learning centres available will vary according to the needs and interests of the children in your class, your available space, and your learning goals or objectives. Your centres will grow and change over the course of the year, so stay flexible with what you offer to children. Be mindful of the possibilities as you observe children's responses to the materials you have set out, or to the space itself. Be intentional in your responses to a child's own observations and discoveries. Ask yourself:

- What can you enhance?
- How can you extend children's learning?
- What do the children's homes look like, and with what types of furniture, utensils, tools, books, and toys are they familiar?
- How can you incorporate these elements into the Kindergarten environment?

Learning centres may be temporary or permanent. Permanent centres will be available to children on a year-round basis and will include sand and water, blocks, and resources for dramatic play. Temporary interest centres may respond to children's current play themes and interests, skill development, or seasonal availability of materials, such as spring tadpoles for a tadpole observation centre. The materials in some learning centres will vary, but the centres will remain in use for the entire year.

Permanent learning centres are available to children year-round and should include sand and water, blocks, and resources for dramatic play.

In this Kindergarten classroom, the light table is a year-round feature, but what children may examine on it changes. Today, these girls enjoy a literacy activity that is enhanced by the light shining through clear plastic trays (partially filled with a 3-to-1 mixture of salt and gelatin powder for colour and scent) so that they can easily see the letters they are practising making. They are also developing key science competencies, such as asking questions, observing, and predicting, which are learning outcomes identified in Cluster 0 of Kindergarten Science.

(L) Two friends create their letters on a light table.

Suggestions for Play Centres

The remainder of this chapter offers intentional teachers many suggestions for learning centres that should be made available year-round, along with some that may be of a temporary nature. It also offers suggestions for discovery bins, which encourage discovery, exploration, and investigation. Special learning opportunities children may encounter during field trips away from the classroom are also discussed. The chapter concludes with a reminder that learning is not confined to a learning centre you create and that some of the best learning opportunities occur outdoors.

Permanent Play Centres

Some key play centres, which have been found in child-centred classrooms for decades, are recommended as fixed features for a Kindergarten classroom. Permanent play centres provide a variety of open-ended learning experiences and should include a block centre, sensory centres such as a water table and a sand table, and a dramatic play centre (sometimes called a playhouse, a housekeeping centre, or a daily living centre).

Block Centre

Blocks are open-ended learning materials that children of various ages and levels of development can use in ways that are quite simple or quite complex. Blocks have been a mainstay of Kindergarten classrooms since the time of Friedrich Froebel, who originated the first Kindergarten curriculum. Today, many Kindergarten children have previously experienced block play in their nursery school, in a child care centre, or at home.

Purposes Play at the block centre

- develops children's large muscle control
- provides opportunities for classification
- provides opportunities for cooperative play
- provides opportunities for imaginative play
- offers children mastery opportunities and the chance to feel powerful

(continued)

- offers many opportunities for talking and learning and using new vocabulary
- promotes experimentation with different materials and their properties
- offers children a three-dimensional medium through which to represent their ideas
- facilitates children's problem solving
- addresses many mathematics and science learning outcomes

Equipment

Equipment and materials at the block centre could include the following:

- **Unit blocks:** Unit blocks expose children to different sizes and shapes and to the relationships that exist among them, since they are based on the ratio of 1:2:4 and include 20 different shapes. The Bank Street School for Children (as cited in Wellhousen and Kieff 102) recommends a minimum of 472 unit blocks of various shapes for a space that will facilitate block play by 7 to 10 Kindergarten-age children, including triangles, ramps, pillars, small and large cylinders, curves, right-angle switches, and other unique shapes. The roof boards, switches, and intersection blocks are especially valuable in supporting the more sophisticated building Kindergarten children enjoy.
- **Hollow blocks:** If space allows, add at least 20 hollow blocks and 10 boards to your block centre. Many hollow blocks are one foot (30 cm) long or longer and may be made of wood or cardboard, and so, despite their size, they are easy for Kindergarten children to carry around. Hollow blocks can be used to build larger structures that facilitate children becoming part of the drama as they play in the structures they build, as they walk or drive their toy cars along the big roads they create, and so on. These blocks are also great to take outdoors.
- **Accessories to block play:** Add wooden or plastic objects or figures such as animals, people of various ages, genders, ethnic groups, abilities, and occupations (e.g., community helpers), traffic signs, cars and trucks, and so on.
- **Other loose parts:** Add interesting supplements such as tarps or tablecloths (for creating tents), small logs, milk crates, plastic cups of different sizes, tree stumps or rounds, tongue depressors, up to 50 pine planks (1 x 4 in., or 25 x 100 mm) of various lengths, PVC pipes, pieces of bamboo troughs or gutters, tires, milk jugs, plastic pop bottles, and so on. These may be changed during the school year to support children's emerging interests.

Special Considerations

Blocks differ from other building materials (e.g., Lego, K'Nex, Tinkertoys) because they do not have a prescribed way to fit together. Blocks challenge children to learn about design and balance as they create the structures they have imagined. They can be made of sponge, wood, or plastic, and can be hollow or solid. Experiences with various kinds of blocks can help children make important science and engineering connections regarding the properties of materials, as well as connections to mathematics learning outcomes and to science learning outcomes in Cluster 0 of Kindergarten Science.

Although wooden blocks may be more expensive than other kinds of blocks for the initial purchase, they will last for many years. Many children will use the wooden blocks, so they should be a staple of your classroom.

Unit blocks are considered to be representational and move children into the "microworld." As children play with these blocks, they will make discoveries, such as four little blocks equal one big block. These kinds of discoveries will also support children's emerging numeracy skills.

Because Kindergarten children are often quite capable of building very large, complex structures, it is critical to have enough supplies. Ensure that there are enough blocks and sufficient clear floor space for at least three children to play. If the room allows, bigger is better for this play centre.

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Block Centre

If budgets or spaces are limited, and to keep the peace in your classroom, it is better to have multiples of the basic shapes than one of every unique shape.

Rich, detailed block play requires ample building time, so long, uninterrupted periods of play are necessary. Sometimes a work in progress can be preserved "as is" for completion the following day. A sign that reminds children that an area is "Under Construction" will be a good visual reminder to children and caretakers to leave this structure where it is. Alternatively, if cleanup is a necessity because a different group of children share the same space, take a photograph of the children and their creation. The photograph serves as a souvenir and is a concrete way for you to demonstrate your respect for the children's hard work even though cleaning up is a requirement.

Make sure there are enough accessories to support children's collaboration and to avoid provoking their competition. Use clear plastic bins or baskets to store and organize small accessories, and place the larger props, such as construction hats, nearby.

Ideas to Try

- **Storage:** Store blocks on open shelves so children can access them without help, choose the blocks they need, and put them away easily. Open bins where all blocks are jumbled together are not recommended, as the block the child wants will invariably be at the bottom, and all blocks will be dumped out to find that elusive one being sought. Instead, organize blocks by type, size, and shape. As children return blocks to their designated spots during cleanup, they have opportunities to sort and categorize. Label the block shelves to help keep them organized. Some teachers outline the various shapes right on the shelves to make this placement job easier, while others use small printed labels along with the graphic representations. This approach helps children make the connection between the symbol and the written word.
- **Location:** Place your block centre close to the dramatic play centre to extend imaginative play further (e.g., a garage could be built for the fire station, or a castle for the princes and princesses). Watch for traffic challenges so that children who are moving around the room do not disturb or interrupt children who are busy building. A corner that is somewhat protected through the placement of the block shelves at right angles to one another often works best.

What to Observe

The block centre offers opportunities to make observations:

- What interests do children show as they build?
- What social skills do you see them using?
- What stories do children tell as they build?
- What questions are they asking?
- How are they representing their learning?
- What problem-solving strategies do you see them try?
- What do you notice about children's fine motor development?
- How do children move through the physical space?
- What mathematics and science learning outcomes do you notice them meeting?

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Extensions

To extend block play, think about adding construction hats, safety vests, books about building, blueprints, tape measures and metre sticks, lengths of string to use as non-standard measurement tools, levels, clipboards, graph paper, and carpenter's pencils. Plastic cups, blankets, and swaths of materials are other loose parts you can add. These materials help children to explore different themes in their block play. You will certainly find many good opportunities to introduce children to the vocabulary of engineers.

> "To extend exploration with the materials, and to encourage more hypothesizing and theorizing," the teacher can help children think more deeply about their constructions by asking questions such as: Why did you choose these materials? What might you do differently if you were to build this structure again? Questions like these will ". . . spark further questions, discussion and engagement with the materials" (Wien, *Emergent Curriculum in the Primary Classroom* 41).

(Top L) Interlocking rubber tiles laid over the carpet create a firmer level surface for children's building. (R) Construction books help inspire children's building. Photos documenting their learning and creations are attractively framed and displayed, while seagrass baskets with photos and labels remind children where the props go during cleanup. Adding blankets to the selection of props helps children create "hidey" spots.

(Bottom L) Children enjoy walling in their teacher by building with plastic cups added to their block centre. (R) In this complex co-construction, children make full use of their block centre's space and a multitude of hollow blocks, unit blocks, and small blocks.

Sensory Centres

Sensory Centres

- **Sand**
- **Water**
- **Light**
- **Other Media**

Children develop their understanding of the natural and physical world through sensory exploration, and a sensory centre provides them with opportunities to understand the different senses and the types of data/information they gather through these experiences. All Kindergarten classrooms should provide children daily experiences with sand, water, and playdough or other types of clay, which are the quintessential materials for unstructured play. Sand and water play activities are happy experiences for most young children and offer many natural mathematics and science learning opportunities. Children often play completely engrossed for long periods, filling and dumping pails of sand or water, building castles, and running trucks on imaginary roadways carved into the sand. Children find pleasure in filling a bucket of water and dumping it or pouring it on the sand. For many children, sensory play can be quite therapeutic and offers a calming effect.

Purposes

As children use their senses to gain experiences of how the materials at their sensory centres look, feel, react, and change, they encounter many excellent opportunities to develop skills related to inquiry and exploration, such as asking questions, posing theories, observing, and predicting.

In addition, sensory play

- contributes to socialization (also allowing the shy or less skilful child to join in and have a feeling of accomplishment)
- improves visual-motor coordination as children consciously try to make their hands work for them
- strengthens small muscles
- contributes to experiences related to understanding of numeracy and science concepts such as
  - estimating and measuring
  - conservation of mass
  - characteristics of water and other sensory materials
  - size, weight, pressure, shape, and displacement
- allows opportunities for imaginative and cooperative play
- calms children
- expands children's vocabulary through conversations with friends and teachers

Equipment

Equipment and materials at the sensory centres could include

- sensory materials, such as sand, soil, birdseed, small plastic pellets, water, snow, bubbles, and playdough
- toys for sand and water play that can be used to dig, scoop, fill, and pour, such as shovels and pails, scoops and trowels, small rakes, wide-toothed combs for making patterns, spray bottles, egg beaters, turkey basters, eye droppers, hand pumps, sand moulds, measuring cups and spoons, sifters, sieves, and colanders, litter scoops (for separating out items you may have hidden in the sand, such as alphabets, "jewels," or other collectibles), and so on (ensure there are enough toys for collaboration, not competition)

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- toy animals, small people and figurines, small cars and trucks, wooden or plastic boats, and washable dolls
- a sand/water wheel
- plastic tubes, funnels, and graduated cylinders (50 mL and 100 mL)
- sponges and non-porous items for comparison
- soap for creating bubbles, food colouring, and glitter (to add a new dimension to water play)
- sponge alphabets for floating in water or alphabet moulds for use in sand
- rolling pins and cookie cutters (for the playdough table), buttons, feathers, pipe cleaners, small pebbles, coloured pasta in various shapes, craft sticks, a garlic press (makes wavy hair), pizza cutters, plastic knives, scissors, and more

Special Considerations

- **Location:** If space is limited, don't be afraid to sacrifice a classroom table to make room for a sand table with wheels for ease of movement, and of a height that allows children access without strain. Tables like these usually come with a lid so that you can open or close them as needed. With the lid on, you have a surface for other uses (e.g., to build upon, dry paintings on). Avoid placing sensory tables too close to the wall so that there is room for at least four children per table (one on each side). If your classroom space does not allow for both sand and water tables, place deep plastic dish basins on children's tables and fill them with a sensory medium.
- **Supplies:** If your sand table has room for four friends, ensure there are sufficient quantities of the resources needed (e.g., four shovels, four pails).
- **Hygiene:** Remember that the water table must be emptied each day for health reasons. Children should wash their hands before and after playing in the water. Add fresh water and chlorine bleach to the water table every morning at a concentration of 10–50 ppm to help reduce the spread of germs. During cold and flu season, you may wish to use small basins of water for individual use; these can be dumped and refilled for each new use. Sanitize water tables and water toys (using 100 ppm chlorine bleach solution or equivalent) at the end of each day. Adding food colouring and/or dish detergent to water tables is acceptable when chlorine is not added. The organic compounds in soaps, detergents, and food colouring, when combined with chlorine, make these products ineffective as a sanitizer. Change the sand, rice, or macaroni table at least four times a year (or when rice or macaroni gets wet). Sanitize plastic beads weekly. As a relatively inert medium, rice does not present the same hazard as do water and sand. Nonetheless, examine rice and other grains regularly, and change the table's contents at least quarterly.
- **Mixed messages?** Some teachers object to the use of food products as an art or sensory medium; they think their use may inadvertently teach young children that it is acceptable to waste limited resources—a special concern when one out of five children in Canada lives in poverty. For example, using rice or cornmeal at the sensory table, gluing beans or pasta to a mosaic, or potato printing with tempera paint at the art centre may seem to sanction wasting food. What do you think?

(continued)

Sensory Centres

Ideas to Try

To encourage children's independence, store a child-sized broom and dustpan and a damp mop close to the sensory centre to guide children to clean up spills and keep the area safe. Keeping plastic smocks on hooks close to the water play will help children keep their clothing dry.

In addition to offering sand and water, some classrooms offer children the chance to explore with other sensory media on a daily or occasional basis. Consider emptying the sand or water table occasionally to allow for other media, such as wooden pieces, mud, snow, birdseed, cornstarch magic (oobleck), and so on.

A light table (an illuminated table, box, or panel) is also used in early childhood classrooms (where space permits) as another type of sensory play that allows children to explore light, transparency, and reflection. In Reggio Emilia-inspired classrooms, "light is another language of learning" (Wien, *Emergent Curriculum in the Primary Classroom* 40). Children will enjoy exploring light with inviting materials such as glass jewels, transparent bingo chips, film negatives, clear parquetry shapes or small transparent blocks, coloured light film or gels, X-rays, fall leaves in autumn, flowers in spring, clear plastic cups, and so on. Children can write on overhead transparencies laid over the light table. If you do not have a light table, see whether there is an old overhead projector in your school and repurpose it for this kind of play.

What to Observe

Sensory centres offer opportunities to make observations:

- What stages of play do you see among the children who play here?
- What interests do children show as they play with sand or water?
- What social skills do you see children using?
- What stories do children tell as they use the sensory materials?
- What questions are they asking?
- What problem-solving strategies do you see them try?
- What do you notice about children's fine motor development?
- How do children move through the physical space?
- What mathematics and science learning outcomes do you notice them meeting?
- Are children willing to take risks with "messy" play?
- Are children calmed by the chance to play with these open-ended materials?

Extensions

As children play with sensory materials, they discover relationships, observe, and make plans they have developed themselves. As you observe children's learning, you will recognize opportunities to link their explorations to specific learning outcomes. Ask children the types of questions that help them to observe and compare, to predict and investigate, to tell stories, to count, and to communicate their discoveries.

Ask children questions such as the following:

- What would happen if you dampened the sand?
- Can you build a structure with sand? How is it different from building a structure with blocks?
- I see a digger, a truck, and some people near the big hole you made. What is going on over there?

(continued)

- How does the oobleck feel as it slips through your fingers? (For a recipe, see Appendix P: Simple Recipes for Children.)
- How much water can fit into that turkey baster? How can you use it to move water from the water table to the sand table?
- What will happen to the snow we have put onto the table? How do you know?
- What will happen if we add dish soap to the water? What can we use to mix it up?
- Which items do you think might float? Which ones will sink?
- How can you keep track of your discoveries?

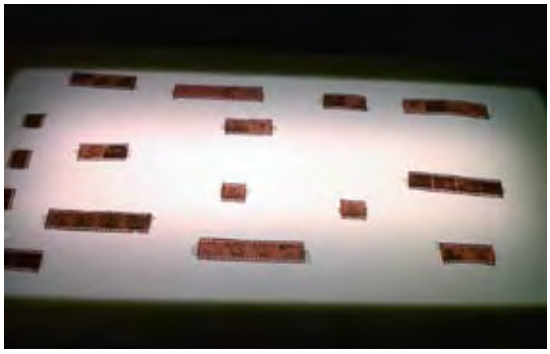
Playdough

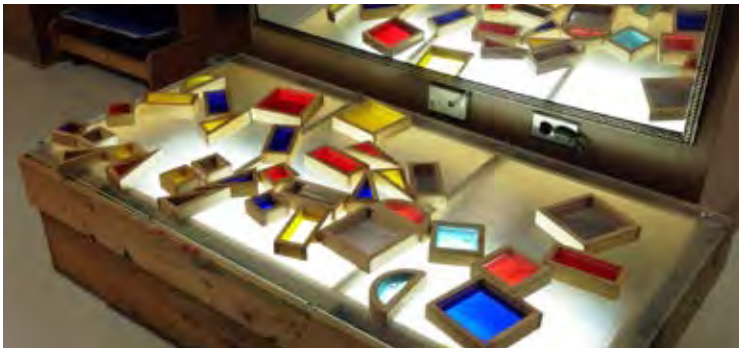
- Instead of using commercial products, make playdough with children to offer authentic literacy and numeracy experiences. (For a recipe, see Appendix P.)
- Create letter shapes out of playdough.
- Practise cutting playdough.
- Use playdough to create three-dimensional objects: monsters, animals, letter shapes.
- Let the creations harden and dry. Once the creations are ready, children can paint them.

Children can be responsible for their own cleanup during sensory play if there are mops, brooms, and dustpans nearby.

The light table offers children many opportunities to explore colours, shapes, patterns, and design, meeting mathematics, science, and visual arts learning outcomes.








(Top L) Children use skills of observation and matching, and are thrilled to find blue "gems" hidden in the sand as they sift it with their kitty-litter scoops. (R) Children play with rice tinted with food colouring, using skills of observation while exploring the properties of rice (e.g., texture, flow).

(Middle L and R): Investigating negatives or X-rays on the light table is a wonderful opportunity to emphasize skills, provoking children to ask questions and to think of how to answer them.

(Bottom L): A light table fascinates children and offers explorations about colour and transparencies.
(R) Wooden pieces are loose parts added to this sensory table.

Dramatic Play Centre

Almost all children enjoy imaginative play. They love to play "house," "hospital," or "store." The dramatic play centre allows young learners to simulate real-life experiences. Many teachers choose to begin the year with a standard housekeeping centre, which may be adapted during the year to simulate other settings familiar to children, such as a veterinary clinic, doctor's office, hair salon, restaurant, and so on. Think about ways you can use the dramatic play centre to enhance children's literacy and numeracy skills, and enrich it with many props, texts, and types of paper to encourage children's reading, writing, and counting. According to Lev Vygotsky, make-believe play is a unique zone of proximal development in which children try out a variety of challenging activities and acquire many new competencies. (For more information, see Chapter 3.)

Purposes

Dramatic play

- affords excellent stimulation for language use and development
- provides opportunities to recognize and appreciate social and cultural differences and to increase children's own self-awareness
- encourages role-playing, perspective taking, and decision making, which involve organization and planning, important parts of self-regulation
- provides practice in social skills, such as respecting property rights, sharing, cooperating in play, taking part in group enterprises, and doing one's share of "family duties"
- encourages creative and divergent thinking and problem solving
- provides opportunities for classifying and organizing into categories, development of visual discrimination, and eye-hand coordination
- provides practical situations in which children become responsible for putting things back where they belong
- promotes children's emerging numeracy and literacy by providing opportunities to use numbers and letters in a meaningful context, such as making grocery lists, taking pizza orders, using play money, and setting the table (one-to-one correspondence)
- fosters science concepts when children's interests are related to trees, paper, and colour

Equipment

Equipment and materials at the dramatic play centre could include

- furniture, such as a wooden stove and refrigerator, and cupboards and shelving for storage
- a table and chairs
- a telephone and telephone directory (include old smart phones with the batteries removed)
- a doll carriage and doll highchair
- a crib or cradle and bedding
- dolls, clothes, and blankets
- sarongs, cradleboards, and *amautiit* (Inuit) baby carriers
- baby supplies (plastic baby bottles, a high chair, or a stroller)
- housekeeping tools (child-sized broom, mop, and dustpan)
- a sink or dishpan
- pots and pans, dishes, cutlery, cooking utensils, and bowls
- plastic or wooden play food and recyclables, such as empty cereal boxes and milk and yogurt containers with labels and logos

(continued)

Dramatic Play Centre

- dress-up clothes for both sexes, as well as gender-neutral clothing or swatches of fabric, which the children can use imaginatively to recreate hero capes, princess gowns, and other clothing items
- cookbooks, recipe cards, takeout menus, grocery store flyers, and coupons
- pens, pencils, and notepads
- a mirror
- a monthly calendar

Special Considerations

Your role: During children's pretend play, be present and involved as you

- help facilitate children's developing social skills
- model entry strategies to join peer play
- stimulate children's numeracy and literacy thinking by making suggestions or asking questions (e.g., How many pizzas do you need to order for all your hungry children?)
- help enhance and extend children's conversations
- gain insight into children's thinking about the roles played by family members
- encourage nurturing and helpful behaviours

Hygiene and health: Remember that dress-up clothes should be washed regularly. If lice are an issue in your school, you may need to discontinue the use of dress-up clothes made of fabric during times of infestation. (You can wash or freeze these items before placing them back in the classroom.) Plastic firefighter hats, for example, should be fine.

Ideas to Try

Add items that represent the diversity of your classroom, neighbourhood, and community to the dramatic play centre. What kinds of things might children see in their own kitchens at home? Consider adding woks, gourds, Asian soup spoons, cultural serving trays, bamboo mats, bamboo steamers, chopsticks, tortilla presses, rice bowls, wooden bowls, mortar and pestle, small cast-iron pots, and so on. Look for dolls that represent the diversity of Manitoba's Kindergarten children and their families, including dolls with differing abilities. Ask families to contribute props for your dramatic play centre, such as dishes, recyclables, fabric swatches, cultural items, hats, and so on.

What to Observe

The dramatic play centre offers opportunities to make observations:

- Which children engage in dramatic play?
- Who seems uncertain of what to do?
- What stories or scripts are children playing out?
- Do you notice particular themes (e.g., danger/rescue, good/bad) being explored?
- How are children using language as they play?
- What prior knowledge do children bring to this play?
- How do children self-regulate as they stay "in character"?
- What do you notice about children's fine motor development as they undo buttons, write a grocery list, and so on?
- Which numeracy and literacy outcomes are met at this play centre?

Extensions

Respond to children's interests and ideas. Make changes to the dramatic play centre based on children's interests and decisions, not on "the theme of the month."

(Top L) Dolls with different abilities use special mobility aids.
(R) Culturally diverse dolls.

(Middle L) A doll lies in her cradleboard. (Centre and R) Children enjoy the dramatic play props and are inspired to write as they take their friends' orders.

(Bottom R) Children themselves decide how their dramatic play centre will transform next, using a graph that encourages reading, writing, and democratic decision making. In this case, the pet store was the clear favourite.

Switch It Up

You may wish to adapt the dramatic play centre to simulate other settings and materials that will encourage children's imaginative play. Some suggestions follow.

Children play "doctor's office."

Grocery Store

- cash register
- play money
- empty food containers
- plastic fruit and vegetables
- bags
- grocery flyers
- coupons
- paper and pens to make shopping lists and signage
- coupons
- purses and wallets
- price tags (envelope or folder labels)
- open/closed sign

Hair Salon

- empty shampoo bottles
- old blow dryer and curling iron
- combs and brushes
- mirrors
- beauty magazines
- telephone
- invoice pads (with carbon paper)
- open/closed sign

Doctor's Office

- white shirts
- cloth bandages
- adhesive bandages
- stethoscope
- plastic syringes (needles removed)
- telephone
- telephone message pad
- appointment book
- magazines and books for the waiting area
- paper pads and pens for prescriptions
- file folders and loose-leaf paper for patient records
- in/out sign
- poster about flu shots
- eye chart

Carpentry Shop

- screwdrivers
- hammers
- screws
- wood pieces and other loose parts
- cans and brushes
- non-toxic wood glue
- ruler, level, and measuring tape
- safety goggles
- open/closed sign
- blueprints
- books about building
- clipboard and pencils
- carpenter's aprons and hats
- empty (non-toxic) paint cans, brushes, and rollers
- invoice pads (with carbon paper)

(continued)

Restaurant/Pizza Parlour/Ice Cream Parlour/Diner

- tablecloths and napkins
- menus
- telephone for taking orders
- notepads and pencils for taking orders
- cash register and money
- invoice pads (with carbon paper)
- chalkboard and chalk or dry erasable board for "special of the day"
- large sign for the name of the restaurant
- placemats
- beverage list
- board for reservations (where children can write their names if they want to play)
- aprons for chefs and servers
- chef hats
- signs, such as "Please wait to be seated"
- trays for carrying orders to the tables
- plastic dishes, cups, and food
- takeout containers

Gas Station

- work clothes
- hats
- empty oil cans
- funnels
- hose or tubing
- toy tools
- larger toy vehicles
- maps
- cash register
- car magazines
- invoice pads (with carbon paper)

Post Office

- rubber stamp and ink pad
- mail carrier's bag
- hats
- mailbox
- paper and envelopes of various sizes
- pencils and pens
- "cancelled" stamps
- Easter or Christmas seals
- samples of various kinds of mail, such as thank-you cards, special events cards, bills and invoices, magazines, and postcards
- old stamp collection or binder with "trader" stamps
- map of the area
- cash register and play money

Fire Station

- raincoats
- hosing
- firefighter hats
- old smoke detector with its batteries removed
- fire safety poster (Stop, Drop, and Roll poster)
- small old fire extinguisher (expired, no foam)
- telephone
- handbell for the alarm
- maps

Police Station

- fingerprinting materials
- speeding tickets
- telephone
- alarm bell
- maps
- police hats
- badges
- paper for writing incident reports
- toy handcuffs

Vignette: The Pizza Parlour

In response to the children's interest in a book they had read about how to make pizza (*Pizza at Sally's* by Monica Wellington), the Kindergarten teacher and the children turned their dramatic play centre into a pizza parlour. The centre is open during free-play time, and supports the literacy and numeracy work children are doing during more adult-directed times of the day when children write about pizza, read poetry about pizza, and solve simple mathematics problems that involve deciding how many pizzas need to be ordered. The children and their teacher also made their own mini-pizzas (using pita rounds) and visited a local pizza parlour for a field trip. These pizza photos show how the use of dramatic play supports literacy and numeracy goals for children.

(Top L and R) All the fixings are ready for children's pizza making.

(Middle L) Clip charts with order forms get mathematics concepts into play. (R) Children add up the totals and pay and make change.

(Bottom L) A customized pizza order is ready to be enjoyed. (R) During choice time, the pizza parlour is open.

Vignette: The Animal Hospital

In this Kindergarten classroom, children's interest in animals was supported by changing their dramatic play centre into an animal hospital or veterinary clinic. The children researched what they would need for the clinic, and drew their own floor plan of what the clinic should look like. Learning about animal care was enhanced by a classroom visit from a veterinarian, accompanied by some real dogs. This dramatic play also reinforced science concepts related to animal needs, hygiene, food, and so on.

(Top L) Children research what they would see in a vet clinic and create a blueprint for how theirs will look. (R) A friendly vet from the local community later visits the classroom, accompanied by several real pets, to the children's delight.

(Bottom L) Vets examine the stuffed animals. (R) The animal hospital is open.

Arts Education Centres

The multiple perspectives and different ways of viewing the world that are possible through dance, drama, music, and the visual arts richly enhance children's learning. Your arts centres not only facilitate teacher-guided learning experiences that you plan for your group times, but also allow children to explore the arts in more self-directed ways.

Inclusion of First Nations, Métis, and Inuit Arts

Invite both contemporary and traditional dancers and singers to talk about Indigenous musical perspectives and to perform. Include traditional instruments, such as the Iroquois flute. Purchase and display posters and prints depicting First Nations, Métis, and Inuit musicians and dancers, both contemporary and traditional, as well as DVDs, CDs, and MP3s by Indigenous artists to include in the arts centres. Be aware of protocols related to drums and other instruments, as well as appropriate ways to recognize and thank cultural performers (e.g., honorarium, gift).

Music and Movement Centre

A music centre is a wonderful addition to a Kindergarten classroom even if children attend music classes in another designated room in the school.

Purposes

The music and movement centre provides opportunities for children to

- express feelings and develop skills in the social and emotional domains
- develop appreciation for different types of musical genres (e.g., world music, jazz, Indigenous music, classical music)
- develop vocabulary, language, and listening skills
- develop emerging phonological awareness in rhymes and repetition
- explore the physical sciences by creating sounds using various instruments
- demonstrate physical development through dance and movement to music
- explore different sounds, pitches, vibrations, and so on

Equipment

Equipment and materials at the music and movement centre could include

- pitched and non-pitched classroom instruments (e.g., handbells, rhythm sticks, xylophones, slide whistles, finger cymbals, hand drums, tambourines)
- non-traditional musical instruments: items that make interesting sounds or are linked to a curricular theme (e.g., pots and pans with spoons, bubble wrap, dried gourds)
- instruments from other cultures (e.g., Lummi [rhythm] sticks or rainsticks, maracas, West African djembes, castanets, conch shells, brass bells, rattles, wooden flutes, bongo drums, guitars, ukuleles)
- a CD player and CDs in an assortment of musical genres
- microphones
- headphones (these may be in the listening centre, or the two centres may be combined)
- scarves, ribbons, and streamers to support children's dancing
- books about musicians
- sheet music

(continued)

Music and Movement Centre

Special Considerations	Place the music centre close to other noisy learning centres, such as the dramatic play centre. Ensure sufficient space for movement.
Ideas to Try	If there is room and you play an instrument yourself, add a piano, a small organ, a guitar, and so on. Families may wish to donate real instruments they are no longer using.

(Top L) Sheer scarves support children's dance and colour explorations (dance, music, and science learning outcomes).

(Bottom L) A girl experiments with sound using a donated violin.

(Top R) Strumming a guitar is a kind of inquiry.

(Middle and Bottom R) Culturally based instruments add to children's musical explorations.

Visual Arts Centre

Children's art is a joy to children and to the adults who know how to appreciate it. Give young children materials and opportunities to explore all art media, and talk with them about their creations (if they want to). Expose children to various media, artists, and their styles, and encourage children to try out some of the art techniques. The majority of the time, children should be engaging in free art rather than following a teacher's example. Teacher-directed arts and crafts do not respect children's own ideas and interests, as they often focus on product rather than on process. Instead, encourage children to use individual expression, which means that they determine the subject of the art activity and the medium they will use.

Purposes

As children create at the visual arts centre, they can

- explore an interesting variety of materials to which they may not have had access previously
- represent their feelings, ideas, and prior experiences through art
- make two- and three-dimensional art
- become involved in a creative process of making art
- learn and use vocabulary related to artistic endeavours, such as *sculpt* or *shade*
- practise and master art techniques, such as sculpting
- practise thinking and fine motor skills that will also support their emerging printing, as children draw their ideas before they begin to write about them

Engaging in the arts also helps Kindergarten children to

- develop holistically in other domains, such as social competence, emotional maturity, and language and thinking skills
- strengthen related skills, such as numeracy and critical thinking

The visual arts centre has opportunities for addressing some of the Kindergarten Science learning outcomes related to colour through provocations that ask children what happens when they mix colours, and then have them try it. Address learning outcomes related to paper by stocking the visual arts centre with a variety of different types of paper for children to explore. The visual arts are also rich for addressing learning outcomes related to Cluster 0 of Kindergarten Science.

Equipment

Your visual arts centre or "studio" might include

- an easel with paint (if room allows, place several easels together to let children share their experience and collaborate with one another)
- various tools (e.g., different sizes of paintbrushes, natural sponges, easy-to-use staplers, hole punches, glue and glue sticks, right-handed and left-handed scissors)
- various materials for drawing, including several sizes of markers, coloured pencils, chalk, pastels, and crayons
- several types of paint supplies, such as watercolour and tempera paints
- many types of good quality paper in various sizes, textures, and colours
- a sturdy, mobile drying rack
- squeegees, small and large paint rollers, and feather dusters
- a spatter screen

To encourage three-dimensional work, the arts centre may include

- various loose parts that children can cut and glue (e.g., glitter, stickers, recyclables such as toilet paper rolls, natural materials such as pine cones, twigs)
- natural clay or modelling clay (e.g., Plasticine, Fimo) for sculpting
- small pieces of wood, recycled cardboard, plastic, and all-purpose glue for construction projects
- an assortment of wire in different gauges stored in clear containers, including pipe cleaners in a multitude of colours

(continued)

Visual Arts Centre

Special Considerations

Consider the organization and placement of supplies and equipment:

- Place a table and chairs for several artists close to the shelf where art supplies are kept, and, if possible, locate the art centre close to a sink and on non-carpeted flooring.
- Regularly organize your art area to make sure children can easily find what they are looking for and can easily see where materials go when they have finished using them.
- Ensure children have easy access to their choice of materials and do not need to ask for help.
- Encourage independence and taking care of shared space by placing a mop and a pail close at hand to help children take responsibility for paint spills and messes.
- Take care not to frustrate young children who may have poorly developed manipulative skills. Plastic or blunt scissors, oversized crayons, markers that are dried out or have mushy tips, and dry crumbly clay often present children with greater problems than necessary. Provide a wide variety of drawing and painting tools, some that make fine lines and some thick, and several different types of papers that allow for both large- and small-scale artworks. In addition, provide a good balance of two- and three-dimensional materials.
- Some art projects take several days to complete, so think about storage.

Ideas to Try

- Try mixing in some non-toxic laundry detergent flakes (not powder) into your paint to facilitate easier cleanup.
- Introduce children to famous artists with the use of your interactive whiteboard or through reference books from the library. Visit an art gallery or the studio of a local artist. Discuss various techniques used by artists. For example, introduce children to the works of artist Georgia O'Keeffe, who is famous for her extreme close-ups of flowers done in chalk; then provide children with chalk, a vase full of peonies or other beautiful flowers, and see what happens.

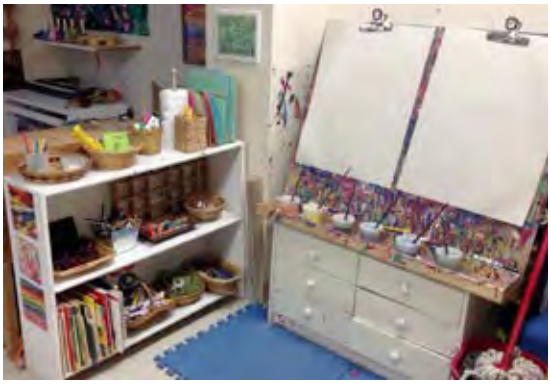
What to Observe

The visual arts centre offers opportunities to make observations:

- How do children explore their own interests at this centre?
- What do children choose to represent?
- Do children show specific interest in certain materials (e.g., clay, pastels)?
- What "arts" language (e.g., shades, textures, patterns) do you hear children using (also related to science and mathematics learning outcomes)?
- What do you notice about children's fine motor coordination as they play at this centre?
- What social skills do you notice being demonstrated?
- Which of the "100 languages" do you see children using?

Extensions

- Include clipboards with writing/drawing materials that children can take around the classroom or even outdoors.
- Introduce materials that support learning going on in other areas of the classroom. For example, when children are learning about the seasons, add paints in fall or spring colours; when learning about trees, children may paint with small evergreen branches.
- Invite local artists, contemporary and traditional, to visit your class to work with children using techniques and media you may not use yourself, such as mosaic, tie-dye, beading, printmaking, sculpture, and so on.



Think about how and where you store supplies for your visual arts centre. When these are organized with purpose, you provide clear messages to children about where things belong, supporting order and calm. You show children the importance of the learning they undertake at this play centre and that you value their independence while they focus on their creations.

(Top L) A three-dimensional sculpture made of recyclables. (R) Having children paint side by side promotes conversations and shared experiences.

(Middle) An attractive and organized visual arts centre allows children to choose their medium with minimal adult support.

(Bottom) Children use mirrors and collaborate in the creation of self-portraits.

Library and Listening Centres and/or the Meeting Place

Intentionally develop a comfortable spot where children can browse among photographs, picture books, fold-out books, reference books, and easy-to-read books. Encourage sharing and quiet talking.

When several copies of an easy-to-read book are available, have those children who are very eager to learn to read follow along on each page of the book as you read to them. Children enjoy hearing a story several times, especially if it is well read. Occasionally, a young child can read well enough to hold the interest of small groups of classmates. Some classrooms combine their circle area or meeting place with their library area; others may separate these when space allows. What do you do?

Purposes

Library and listening centres foster children's

- emerging reading skills
- imaginations
- interest in and respect for books, and a growing appreciation for good literature
- visual perception
- expanding vocabulary, focus, and task orientation
- ability to isolate and decode one-syllable words
- developing abilities in retelling stories they have heard before

The purpose of having a well-defined meeting area for your circle activities is outlined in Chapter 5 (see the discussion of The Social Environment).

Equipment

The library and listening centres and/or meeting place may include

- a selection of books, including fiction and non-fiction, some picture books without words, as well as simple books that emergent readers may try to read independently, and books that adults read to children
- books representing the diversity of Manitoba's Kindergarten children
- books representing children and adults of various abilities
- books and music by First Nations, Métis, and Inuit writers and musicians, as well as books and music with First Nations, Métis, and Inuit themes and subject matter
- books that support the themes children are interested in or the kinds of activities they most enjoy, such as building with blocks (e.g., Lego)
- fantasy stories about people or animals, and non-fiction books that provide information about animals, plants, or other countries, or about nature or science themes the class is exploring
- books that support numeracy work, such as counting books
- books that relate to current classroom activities or upcoming special events, such as a visitor from the Humane Society
- comfortable furnishings, such as floor pillows, carpet squares, soft chairs, an area rug, and soft lighting
- puppets and a stage
- flannelboard and flannelboard characters from favourite stories
- a bookshelf where books can be displayed and easily accessed
- an adult armchair or rocking chair
- a big-book stand
- an easel and chart paper or a whiteboard (or interactive whiteboard) for recording children's ideas during story time or circle time

Note: Rotate books regularly to maintain children's interest, but leave favourite books on the shelf as long as children are still interested.

(continued)

Library and Listening Centres and/or the Meeting Place

Special Considerations	When the library centre doubles as your classroom meeting area, ensure that there is enough room for the entire class to gather comfortably. Locate the centre away from traffic so that children can read without interruption by friends passing through.
Ideas to Try	If an educational assistant, a book buddy from another grade, a volunteer, or a visiting storyteller is available, that person should be ready to read the stories or poems the children ask for. He or she can support children who are trying to read by helping them with the words they ask about. If a listening centre or a CD player and microphone are available, you can record favourite stories and books. Children can also record themselves telling stories and listen to their recordings. If the recording includes signals to indicate that a page is to be turned, the child can follow along and enjoy the illustrations. When headsets are provided, children can listen without distraction from other noises in the room. Some teachers choose to separate the listening centre from the library to create a quiet cozy spot for independent listening to books or music. This listening centre may be placed close to the reading centre or in another quiet part of the classroom.
What to Observe	The library and listening centres and/or meeting place offer opportunities to make observations: ■ Which types of literature do children select? ■ How do children respond to the texts you offer and to the *environmental print* in this area? ■ Are children engaged by the discussions you have together about books read in this area? ■ How do children retell stories with the materials you have made available to them? ■ Which concepts about print do children demonstrate? ■ What do children already know about letters, sounds, and words? ■ What do you notice about children's oral language? ■ How do children see themselves as readers? as communicators? ■ What do you notice about children's social skills?
Extensions	Supplies such as puppets and a puppet stage, and a flannelboard with flannel characters, encourage children to recreate and retell favourite stories. Puppets related to stories you have read to children help familiarize them with vocabulary, support their story comprehension, and support their growing ability to retell stories. If there are children in your classroom who are learning English as an additional language, add books in their first language to the selection. Some bilingual books also tell a familiar story in both English and another language, such as Arabic. Invite First Nations, Métis, and Inuit storytellers to share traditional and contemporary stories. As children create their own books, display them for children's reading enjoyment.

Bilingual Books

Bilingual books make valuable additions to the class library. Try to find books that contain both English and the other languages spoken by students in the class. Allowing EAL students the opportunity to further their literacy skills in their first language helps bridge English language development.

(Top L) Children retell a favourite story using puppets. (R) A comfortable library centre welcomes young readers.

(Middle L): A large book is easily seen by all children during circle time. (R) A listening centre allows children to listen to stories or music without disturbing peers.

(Bottom R) Children can rate the stories they listen to and tell something about what they heard, using drawing and writing.

Discovery or Exploration Centres

Jerome Bruner's constructivist theory (discussed in Chapter 3) describes children as active problem solvers who are capable of solving difficult problems. Discovery or exploration centres, which are especially suitable for mathematics and science learning, enable children to explore materials actively with an intentional curriculum focus.

"Now while mathematics is inescapably tied up with written symbols and in some ways, indeed, incorporates them into its very essence, it is also true that the symbols are nothing without the perceptual and manipulatory intuitions which bring them life and meaning. The experiential roots evolve as a product of children's exploration of their environment and, by reflection, of their own emerging practical competencies" (Hawkins 99–100).

Mathematics Discovery Centre

A dedicated mathematics discovery centre helps to focus on and support children's emerging numeracy competencies, in addition to other play centres where children explore numeracy.

Purposes

The mathematics discovery centre provides opportunities for children to

- learn number symbols
- develop reasoning and estimating skills
- begin measuring using non-standard units (e.g., hands, feet, thumbs, tiles, paper clips) and standard units (e.g., metre sticks, litre jugs, cups, scales)
- begin to see patterns in the number system
- explore patterns in beading, birchbark biting, baskets, and so on
- expand vocabulary while using mathematics language: longer, shorter, taller; heavier, lighter; too much, too many; thin, thick; few, less; before, after, and so on
- gain exposure to simple geometry and learn to recognize and name simple shapes, such as triangles, rectangles, squares, and circles, and their three-dimensional counterparts, such as prisms, cubes, and cylinders
- categorize and compare according to shape or quantity (e.g., Which pile of buttons has more?)
- create and copy patterns, and make symmetrical designs
- name and differentiate between coins
- practise eye-hand coordination and fine motor skills
- begin to tell time
- work on the concept of conservation
- place objects in one-to-one correspondence
- make and interpret simple graphs (e.g., to show attendance as up or down from yesterday, score in a game, birthdays by months)
- work on puzzles (these may also be in the manipulative centre)
- develop social skills while playing simple mathematics games with rules (e.g., using spinners and dice or number cubes, and counting spaces while moving tokens around the board)

(continued)

Mathematics Discovery Centre

Equipment

The equipment and materials at the mathematics discovery centre may include

- measuring units, such as cups, spoons, tapes, rulers (metric), a small kitchen scale, and a bathroom scale
- counting frames and 10-frames—look for blackline masters in *Kindergarten Mathematics: Support Document for Teachers* (Manitoba Education and Advanced Learning)
- pegs and boards
- design cards and beading frames
- wooden sticks of various lengths (e.g., tongue depressors, craft sticks)
- boxes of shapes varying in size and colour
- foam trays (from meat and bakery counters)
- linking or interlocking cubes (e.g., Unifix cubes)
- geometric shape puzzles
- wood cylinders (Montessori-type)
- various "Kindergarten collections"—loose parts that can be sorted and counted (e.g., buttons, shells, bread-bag tags, beads, lima beans, coins, counting bears, keys)
- containers to sort things into (e.g., plastic divided trays for pre-cut fruit and vegetables, egg cartons, ice-cube trays, cutlery trays)
- playing cards
- magnetic checkers
- bingo chips
- small beanbags
- sand for measuring and pouring
- water and beakers
- a magnetic board
- Cuisenaire rods
- attribute blocks
- geoboards and rubber bands
- dominoes and other simple games that use dice (number cubes) or counters
- cups and boxes
- hula hoops in various colours to create Venn diagrams to explore overlapping characteristics
- a number line on the floor or wall
- block design cards
- parquetry blocks
- props to help teach time, such as an egg timer, a digital timer, a traditional Judy clock (with its visible gears and easy-to-read numbers), or old alarm clocks
- mathematics books about patterns, shapes, and numbers
- calendars
- a cash register and pretend money
- materials for recording or drawing, including graph paper
- simple calculators and old adding machines
- an abacus

(continued)

Mathematics Discovery Centre

Special Considerations

It is important for children to experience free exploration of the materials before the teacher structures learning activities. This is a necessary first step. Daily opportunities to encounter numeracy through play provides for "children's deep and sustained interaction with key mathematical ideas" (NAEYC and NCTM 3).

Ideas to Try

As you observe children exploring at the mathematics discovery centre, you can help scaffold on their learning by asking key questions, model the use of mathematics vocabulary as you name shapes or explain number operations, and add new items to the centre to extend children's learning. For example, in one classroom, the Kindergarten teacher noticed children's growing interest in money emerging from the grocery store play. She visited a local thrift shop and purchased as many piggy banks as she could find to add to the learning environment, and added a bowl of pennies for children to count.

What to Observe

The mathematics discovery centre offers opportunities to make observations:

- What do you notice about children's interest in using math manipulatives?
- What social connections are fostered at this discovery centre?
- What types of mathematics words (e.g., more, less) do children use here?
- What prior knowledge about numeracy do children demonstrate here?
- What inquiries do children have?
- Which mathematics learning outcomes do you see children meeting?
- How do children represent their understanding of numeracy concepts?
- What do you notice about children's fine motor skills as they use the various tools you have made available in this area?
- Are children engaged in the process of solving mathematics problems?

Extensions

Even after this centre is set up, continue to take advantage of the many opportunities for developing mathematical concepts and skills in other play centres or learning experiences.

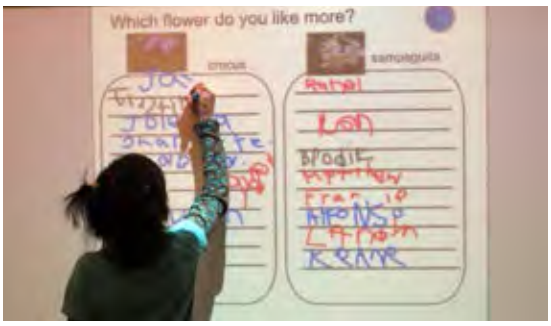
For appropriate concepts and skills, see *Kindergarten to Grade 8 Mathematics: Manitoba Curriculum Framework of Outcomes, 2013* (Manitoba Education).

For ideas to help you create numeracy-rich early learning environments, see *Kindergarten Mathematics: Support Document for Teachers* (Manitoba Education and Advanced Learning).

Your mathematics discovery centre might include a survey of the day.

Math manipulatives are available to children in the mathematics discovery centre.

Children draw cards to guide the number of blocks or coins they are to count.



(Above L) At the mathematics discovery table, children find that quantities can be sorted, counted, and compared using tokens, cards, numbers, and numerals. (R) A "Survey of the Day" asks children a question; the numbers of respondents are counted later in the day.

(Bottom) Geoboards allow children to explore many mathematical concepts.

Science Discovery Centre

Children are like scientists in that they are curious and learn by observing, questioning, exploring, and interacting with the world around them. Science is an effective platform on which to build skills, knowledge, and attitudes fostering learning and language development. The inquiries that happen at this play centre will depend largely on the children's interests, which they demonstrate by the things they bring to school, the questions they ask, and the discussions that have developed in some of their large-group learning activities.

Purposes

Children may undertake scientific explorations at the sensory centre, block centre, or other play centres. In addition, a dedicated science discovery centre

- provides opportunities for exploring, investigating, and building knowledge that helps children understand their world
- addresses skills from Cluster 0 of the Kindergarten Science curriculum when children ask questions that demonstrate curiosity about living things, objects, and events in their immediate environment, manipulate materials purposefully, research and carry out their own plans, and so on
- provides opportunities to develop concepts in science, nature, social studies, numeracy, and literacy
- allows children to observe, ask questions, predict what might happen, carry out self-directed investigations, and manipulate and classify natural things by their attributes
- sparks children's curiosity and sense of awe and wonder
- exposes children to a variety of living and non-living things
- offers children opportunities to care for pets or plants
- creates reasons for children to write and draw about their observations
- offers children opportunities to take apart human-made and recyclable items
- allows children to use simple machines in classroom applications (e.g., using a pulley or simple lever)
- encourages the use of computer technology and concept books to learn about science topics

Equipment

Equipment and materials at the science discovery centre could include

- artifacts and pictures that support what the children are interested in learning about
- nature and science magazines and books
- things to feel, smell, hear, and observe—consider collections that have different textures, make different sounds, or have different smells
- seeds and bulbs to grow
- a bowl of moss with stones, acorns, and pine cones
- displays of rocks, bones, and shells
- class pets
- objects of interest brought by the children
- old appliances, such as toasters, radios, and telephones for taking apart and putting back together, and tools to do this
- tools with which to explore, such as magnifying glasses, flashlights, binoculars (for looking out the window), prisms, thermometers, magnets, mirrors, eyedroppers, tweezers, tongs, units of mass (weights) to place on the balance scale, a bathroom scale, a height chart, and litmus paper

(continued)

Science Discovery Centre

- receptacles for sorting, such as mats and containers (e.g., ice-cube trays, egg cartons, muffin tins, cutlery trays, plastic vegetable or fruit trays), materials to use for recording discoveries, such as notebooks, cameras or tablets, audio recorders, paper, clipboards, pencils and crayons, and science journals
- materials for science activities suggested in *Kindergarten to Grade 4 Science: Manitoba Curriculum Framework of Outcomes* (Manitoba Education and Training)

Special Considerations

- Monitor the science discovery centre carefully, to ensure that it does not become cluttered up with a collection of dusty shells and bird nests unrelated to the children's own emerging interests.
- Give children plenty of uninterrupted time (and your assistance, as needed) to work with their peers to explore at the science discovery centre, and to analyze and interpret information they discover. Provide the kinds of "scientific tools" (e.g., eyedroppers, thermometers) that will enhance their interest in being scientists.

Ideas to Try

While the science discovery centre can and should support children's interests, it can certainly also help you to meet science curriculum outcomes. Children may independently explore paper, colour, and trees at the centre, in addition to participating in whole-group and small-group learning about these topics. For example, growing a plant could lead to questions about trees and address young children's common misconception that a tree is not a plant, but rather, a tree is a tree.

To develop skills to support inquiry and problem solving, provide children with measurement tools and have them explore how these enhance their observations (e.g., a magnifying glass vs. the naked eye). Thermometers, rulers, and weighing devices help children see that objects and energy vary in quantity.

Since young children learn through hands-on experiences, they enjoy using their senses to explore their world. Children can explore through touch, smell, and taste, as well as through sight and hearing. Offer children interesting things to explore through touch by providing collections of various textures ranging from rough sandpaper to smooth velvet, prickly evergreen branches and soft feathers, bubble wrap of different sizes, straw, string, wire, and foil. Create your own "feely bag" (a large sock or cotton bag full of interesting items to explore through touch). Let children guess what is inside and then see whether they are right. Sound collections, which may be borrowed from your music centre, offer children auditory experiences. Items such as boxes of paperclips to shake, clickers, bells, and small and big zippers all make different sounds for children to explore and talk about.

To explore colours, you can offer children clear plastic cups or small glass bottles, food colouring in the primary colours, glitter, a small pitcher of water, eyedroppers with which to transfer water, and a bucket for discarding water mixes they have finished using. Children can make "perfume" or a "magic potion" as they explore shades and hues that will change depending on the amount of colour and/or water they add (these may be arts education learning outcomes as well). Offer children the chance to explore how colours can change through the use of paint or food colouring on porous materials, such as coffee filters, paper towels, and tissue paper.

(continued)

Science Discovery Centre

What to Observe

The science discovery centre offers opportunities to make observations:

- What do you notice about children's interest in using science materials?
- What social connections are fostered at this discovery centre?
- What types of science words (e.g., more, less) do children use here?
- What prior knowledge do children demonstrate here?
- What inquiries do children pursue?
- Which science learning outcomes do you see children meeting?
- What do you notice about children's fine motor skills as they use the various tools you have made available?
- Are children engaged in the process of solving science problems?

Extensions

Add new materials to the science discovery centre to support both the children's interests and the goals of the science curriculum, and make sure you remain responsive to children's development and their emerging inquiries.

You may have a variety of collections for children to explore, including natural items gathered from field trips and walks.

Encourage children to extend their thinking from one learning centre to another (e.g., old appliances "taken apart" at the science discovery centre might be used in the visual arts centre to create a sculpture).

Help children to focus their attention, compare and contrast, make predictions, and carry out investigations by asking questions:

- What do you think would happen if . . . ?
- How are these the same? How are they different?
- What would you like to find out about?

Provide children with opportunities to explain their thinking and to express and discuss their ideas with others. They may enjoy drawing, writing, making graphs or pictures of data, or simply talking. Provide science notebooks or clipboards and charts where children can record their observations.

Invite knowledge keepers and Elders to discuss science concepts from a First Nations, Métis, or Inuit perspective with your students. They may discuss topics such as Indigenous people's relationship to the land and the natural world, astronomy, traditional plant use, stories about animals, and more.

(Top L): Remember to place science books about what children can investigate right in the science discovery centre. (R) Children drip paint onto paper.

(Middle) Children's inquiries are about their class pet, Teddy the hamster. To answer the question, "Does Teddy have a heart?" the children listened carefully with a stethoscope loaned to the class by a parent who is a doctor.

(Bottom) A science discovery centre elicits wonder as children see metamorphosis occurring day by day.

Special-Interest Centres

Depending on the interests of children in your classroom, as well as your plans for the children's learning and the physical space available, you may choose to add some of these special-interest centres and experiences to your learning environment:

- manipulative centre
- cooking centre
- woodworking or carpentry centre
- writing centre
- snack centre
- temporary centres
- discovery bins
- field trips

Manipulative Centre

The manipulative centre, intended for the development of fine muscle control, may exist as a separate play centre or may be incorporated into other areas, such as the writing, mathematics, or science centres. Some teachers refer to it as the hands-on thinking centre or the take-apart centre.

Purposes

The manipulative centre

- develops children's fine muscle control
- develops eye-hand coordination
- develops perceptual motor abilities
- provides opportunities for cooperative play
- provides opportunities for imaginative play
- increases vocabulary
- promotes writing skills
- promotes patterning
- supports children's problem solving

Equipment

Equipment and materials at the manipulative centre could include

- small building toys (e.g., Lego, K'Nex, Tinkertoys), snap cubes, linking cubes, or other interlocking table blocks
- pegs and pegboards
- gears with interlocking plates and connectors
- beads for stringing
- lacing cards with strings
- puzzles (including floor puzzles)
- figurines with parts that fit together (e.g., Fisher-Price, Playmobile, Mr. Potato Head toys)
- sets of bolts and nuts
- pick-up sticks
- small alphabet blocks

(continued)

Manipulative Centre

- games such as dominoes, lotto match-ups, and so on
- collections such as keys, bread-bag tags, pompoms, and polished stones
- playdough or clay (may be set out at this centre or in the sensory area)

Special Considerations

Organize the various materials in clear labelled containers or baskets organized on shelves so children can easily select those they are interested in using, and can clean up easily and independently when they are finished playing.

While some children will sort a collection on their own initiative, you can invite others to select a collection and to sort it by size, colour, shape, texture, and so on. Cutlery trays or recyclable fruit or vegetable trays work well for this purpose.

Sorting and classifying are important science-related skills (outcomes identified in Cluster 0 of Kindergarten Science), especially if materials include tree products/parts and paper products.

Ideas to Try

Invite families to contribute manipulatives from home or from nature, such as buttons, unused keys, nuts and bolts, coins, tiny pompoms, bottle caps, seashells, seeds, river rocks, dried beans, and so on.

Extensions

Consider adding

- writing materials, such as index cards, clipboards, and pencils
- measuring tools, such as a balance scale or ruler

(Top L) Sorting pompoms using tongs or tweezers, and feeding bingo chips to a tennis ball with a hungry monster mouth are fun ways to work on eye-hand coordination. (Centre) Children create letters they know out of small manipulative blocks. (R) Polished stone and beach glass are interesting materials for children to examine and sort.

(Bottom) Ribbons and beads promote children's emerging skills in patterning, numeracy, and creativity, as well as fine motor control (a necessary skill for printing), while facilitating skills in observing, sorting, classifying, using new vocabulary, and so on.

Cooking Centre

Please see Appendix P for some simple recipes to try with your class.

It would be difficult to find a learning activity that teaches more concepts and creates more enjoyment for children than cooking. As children work side by side, they practise cooperation and sometimes patience, while each friend takes a turn to complete a task related to a common goal. For many children, shared cooking allows them to explore foods in a new way and to experience pride in their accomplishment. Cooking is "food science," and many science, numeracy, and literacy outcomes can be addressed through these learning experiences.

Purposes

A cooking centre provides children with opportunities to

- feel accomplishment when completing a product, and then eating it
- experience social and language growth and develop self-regulation
- experience cognitive growth and become aware of the significance of words and numbers
- participate in role play
- experience competency while engaging in "adult" activities, such as cutting fruit into bite-size pieces using a plastic serrated knife
- participate in discussion of favourite foods, which helps teach perspective taking
- interpret stimulation of the senses of seeing, hearing, smelling, touching, and tasting (using the senses is at the heart of science)
- practise manual dexterity when they beat, pour, grate, knead, and so on
- practise following directions
- learn more about healthy food choices and cleanliness habits (When children use whole-grain flours, seeds, honey, wheat germ, molasses, and dried fruits in their cooking, they learn to enjoy healthy foods.)

Equipment

Equipment and materials at the cooking centre may include the following:

- If you do lots of cooking with children and have plenty of available storage, you may wish to ask families to contribute a personal bowl, measuring cup, wooden spoon, and set of measuring spoons, which can be kept at school for use at the cooking centre.
- Timers that signal when cooking time is up are very useful. Egg timers fascinate children. If necessary, a timer can be turned over several times.

Special Considerations

Before the first cooking session:

- If possible, take the children shopping for the ingredients in a recipe and make this part of the cooking preparation process.
- Print each recipe on large chart paper, or prepare rebus recipe cards to place along the table.
- Assemble all necessary utensils and ingredients.
- Make arrangements for the dishwashing and drying.

As you get started:

- Be mindful of children's food allergies or food restrictions when selecting recipes.
- Limit the number of children involved in a cooking session until all have learned how to use the centre.
- Encourage children to wash their hands carefully prior to cooking. In addition, wash all surfaces with hot soapy water to remove dirt and grease, and then sanitize them. Alternatively, cover all table surfaces with flip-chart paper for easy cleanup afterwards. Remember to wash all fruit and vegetables before beginning to cut them up.
- Cook foods to their proper temperatures.

(continued)

Cooking Centre

- In the early stages of operation, measure out the ingredients and provide the children with only the exact amounts of each item needed for the project. Later, children can have access to larger supplies and do their own measuring.
- Emphasize that cleanup is part of the cooking activity.
- Provide unbreakable equipment, and place it in work areas at the children's height.
- Keep the rules as simple as possible (e.g., Wash your hands and don't touch anything hot without adult supervision.).
- Be careful about food storage to minimize the chance for food spoilage.
- Always store and chill foods at their proper temperatures.

Ideas to Try

Production-line cooking (or one-cup or one-portion cooking) is an excellent way to introduce cooking to the Kindergarten classroom and to integrate many subject areas (mathematics, science, social studies, health education, and language arts). During production-line cooking, each child makes one portion or one serving of food; for example, each child makes one muffin ready for baking or one serving of fruit parfait. This type of cooking activity fosters children's ability to work independently and keeps their attention much longer than when they all have to wait for one child to finish stirring. Select easy recipes that provide opportunities for practising basic skills, such as measuring and stirring, before working as part of a larger group. Place ingredients on a table with entry from left to right. Place small mixing bowls for three or four children at the start of the line, followed by ingredients and recipe cards, mixing spoons, cookie sheet, and washing/rinsing water.

Extensions

Cooperative group cooking engages Kindergarten children in small work groups where they prepare the ingredients for, or different parts of, a single recipe. For example, to create enough salsa for the class, one small group washes and dices tomatoes, another group chops washed cilantro, the third group chops onions, and the fourth group prepares a simple marinade using lime juice, salt, pepper, and a small amount of sugar. This type of cooperative group work is most successful when children have had some prior experiences with cooperating and when they have already developed some basic simple cooking skills (such as knowing the difference between chopping and dicing, and being comfortable using a knife). Children who have a range of cooking experiences can be encouraged to support one another as they work on their respective tasks. Serve up the salsa with some corn chips for a healthy snack!

For a science-related learning activity, have a standard (control) recipe, and then have children vary an ingredient and compare results.

Children were thrilled to make smoothies together on a hot day near the end of the school year. Families asked for the recipe, which the children and their teacher worked on together, achieving important English languages arts and mathematics learning outcomes, and learning about how to represent, along the way.

(L) Using rebus card recipes, children make a variety of nutritious individual snacks that are baked in the school's staff room with the help of a volunteer. (R) Children make gingerbread cookies as an extension to hearing the story of *The Gingerbread Man* and learning about the different sounds the letter *G* can make.

Woodworking or Carpentry Centre

Woodworking can be an enormously satisfying activity for young children as they do real work with real tools.

Purposes

The woodworking or carpentry centre

- develops children's large and small muscle control
- develops children's eye-hand coordination
- provides opportunities for creative expression
- provides opportunities for problem solving
- provides a productive outlet for feelings of aggression or excess energy
- provides opportunities to learn about the physical properties of wood
- facilitates numeracy development as children are measuring, fitting items together, and so on
- introduces children to design technology

Equipment

Equipment and materials at the woodworking or carpentry centre could include

- a sturdy workbench with a vise
- real tools (not toys), such as small hammers, some with claws
- crosscut saws
- a small smoothing plane (for children who have some experience with tools)
- a rasp
- a hand drill or brace and bit
- C-clamps and vises
- small wooden spools
- rulers and a yardstick or metre stick
- ample supply of soft wood (e.g., pine), wood curls, and offcuts, often available from lumberyards free of charge
- nails of assorted sizes (look for those with larger heads to make hammering a little easier for children)
- wood glue and brushes

(continued)

Woodworking or Carpentry Centre

- storage space, such as shelving or pegboards
- a large tree stump or ceiling tiles (these are very easy to hammer into for beginning carpenters and can be used repeatedly)
- safety goggles
- sandpaper of various grades

Special Considerations

Risk management: Some teachers may be a little nervous about children using tools, but remember that while woodworking exposes children to graduated risk, there are many benefits. Through woodworking, children use mathematical problem-solving, fine motor, and social skills, while fostering creativity and imagination. Children who have not experienced the use of tools will benefit from your demonstration and close supervision and coaching as they get started. Your belief in children's competence and your scaffolding support contribute to children's success.

Ideas to Try

Like many loose parts from nature, tree stumps may be available free of charge. As you walk or drive through your neighbourhood or community, you may see a neighbour cutting down a tree. You can also check with city crews working in your area, with landscapers, at local nurseries, or at lumberyards.

Extensions

Children can measure as they work, using levels, metre sticks, or rulers. They can create a plan on graph paper before they begin to build, or draw their project once it is completed, learning there are different ways to represent ideas. Children also build an understanding of the processes related to design technology. This centre offers many links to the learning outcomes in Cluster 0 of Kindergarten Science.

Woodworking is not only a popular activity on its own, but can also enhance other classroom activities as children make signs for the block area, make boats to use at the water table, and so on.

Woodworking centres offer children another avenue for creativity and the chance to work with real tools as they use large and small muscles.

Writing Centre

The writing centre may exist as a separate centre or may be incorporated into other areas, such as the library or listening centre. The writing centre does not take the place of writing that also occurs in all your other centres. Children should be given the freedom and opportunity to write often. Children's curiosity about written language begins with an interest in drawing, making discoveries about paper, and using the writing utensils you provide for them to explore with and to develop their own ideas.

"As they write their earliest messages, children gradually begin to make links between speaking, reading and writing. They may discover that: What I say, I can write. And, what I write, I can read" (Clay, *How Very Young Children Explore Writing* 7).

Purposes

The writing centre provides children with opportunities to

- develop fine motor skills
- practise and refine early writing and reading skills
- practise scribbling, copying, drawing, writing, and creative expression
- translate sound and thought into print (letter-sound correlation)
- support letter recognition
- strengthen connections between spoken and written language
- develop social skills through working together and sharing the writing centre
- create cards, posters, and signs that may be used to support play in other areas

Equipment

Equipment and materials at the writing centre may include

- lined and unlined paper of different shapes and sizes
- envelopes
- blank booklets of different shapes and sizes
- bookbinding materials (e.g., stapler, hole punch, paper clips, binder clamps)
- pencils, markers, and crayons
- rubber stamps and stamp pads
- pictures to inspire children's writing
- alphabet models, textured letters, and magnetic letters
- picture dictionaries
- files with high-frequency words or an adjacent word wall to showcase words currently important in your classroom (e.g., children's names, sight words, theme words)
- writing folders
- blank journals
- an old typewriter, a word processor, tablets, or other media devices
- samples of various kinds of writing, such as lists, greeting cards, bills, and postcards
- a recycling box and scrap box for used paper
- scissors
- cancelled stamps, Easter Seals, or other stamps children may apply to their envelopes
- glue sticks
- sticky notes of different sizes and colours
- small dry-erase boards and erasable pens or crayons
- file folders
- clipboards

Special Considerations

Some children will enjoy coming to the writing centre, but others may choose other types of play; therefore, remember to include writing materials in all play centres so that children can write to support their play, wherever they might be. The use of worksheets is not recommended at this or any other centre.

(Top L) Children explore writing using soft sand and twigs. (R) As children are currently exploring colours, words are colour coded and posted on the word wall at the centre to support children's writing.

(Middle L) Frequently used words and the alphabet support children's writing.

(Bottom) A child makes letters out of mini-marshmallows, toothpicks, and pipe cleaners.

Snack Centre

To support children's self-regulation, some teachers choose to set up a snack centre as one more option through which children can rotate during choice time.

Purposes	The snack centre provides children with opportunities to ■ meet their physical needs for food and drink during their busy day ■ foster language skills, social skills, and perspective taking while eating together
Equipment	Indirectly guide children at the snack table by setting up the number of chairs conducive to small-group interactions, perhaps four to six. Place garbage, recycling, or compost stations close by.
Special Considerations	Aim for self-service so that children can choose from the snack items using utensils such as tongs or spoons, or they can fetch their lunchboxes and bring them to the table when they are ready to eat. Treat your snack centre like any other learning centre, with clear behavioural expectations. Children should learn to wash their hands before eating their snack and clean up after themselves before moving on to the next learning activity. You will probably note that children who are friends will choose to sit together during snack time, but some children may need reminders to visit the snack centre if they are busy and engrossed in other learning. If the school is providing snacks, keep them simple and healthy. Remember to monitor children's progress through all the learning centres, including this one.
Ideas to Try	Be intentional in the way you set up this centre by supporting children's independence, providing opportunities for them to practise self-help skills and build their feelings of competence and confidence.

A snack centre can double as a place for children to practise numeracy, as they pour half a cup of milk, or take 10 of whichever foods appeal most to them, while working on one-to-one correspondence.

Temporary Special-Interest Centres

Intentional teachers often develop temporary special-interest play centres to support specific learning outcomes in different curricular areas, to help children prepare for an upcoming special event, or to take advantage of a seasonal opportunity, such as observing caterpillars hatching into butterflies or watching tadpoles transform into frogs.

Purposes	Consider setting up a space where you can develop a temporary special-interest centre that ■ supports a theme emerging from the evolving interests of children in the class ■ supports a specific topic related to Manitoba's Kindergarten curriculum ■ relates to an upcoming special event
Equipment	Special-interest centres can be developed when children exhibit curiosity about specific topics. As you notice the children's interest, you may decide to create a centre to support further learning.
Special Considerations	As an intentional teacher, you will want to determine what *basic concept* children should learn about this emerging theme and then determine the *curricular areas* in which this concept can be developed. You continue to think about important skills such as inquiry through observing and measuring.

Fundraising Theme Centre

In one classroom where children were planning a lemonade and cookie sale to raise money for a cause they had embraced, the teacher set up a theme centre where children could practise pouring and counting play money to make change. This centre was open for several days leading up to the actual sale.

Children practise pouring and making change before their sale.

Tadpole Observation Centre (Temporary Science-Discovery Centre)

In response to an emerging interest in frogs, families of one Kindergarten class helped to bring in frog eggs from nearby ponds. The growth cycle of tadpoles became a wonderful learning opportunity for children during their last weeks of Kindergarten. The children and their teacher generated a list of "frog" words they were learning about, and these were added to their word wall to help with their writing. The tadpoles were released back into the ponds near the end of school.

A boy observes tadpoles with a magnifying glass.

Clipboards and charts help focus children's attention on what they are observing.

Discovery Bins

Discovery bins, as their name suggests, encourage discovery, exploration, and investigation, and are often especially fun for children when exploring mathematics and science concepts.

Purposes

Discovery bins can promote

- fine motor development
- creative expression
- literacy and numeracy skills

Equipment

Discovery bins feature a variety of materials, and you may wish to include an example of how the materials might be used. The activities are open ended, and there is no right or wrong way to interact with the materials.

Vignette: Discovery Bins

One teacher shared that in her class, the children spend the first 30 minutes of the day (more or less, depending on student engagement) exploring their discovery bins:

Children are invited to make pattern discoveries.

Exploring discovery bins is such a pleasant way to start the day—the students are so eager to work with the materials that they rush to do their morning jobs and head straight for the tables! For example, on the first day of pattern discovery, the bins included a variety of materials as well as examples of patterns. Later in the week, I provided strips of paper, and encouraged students to describe their patterns using letters, numbers, symbols, and so on. The old keys included in the bins were fascinating to the students. They loved examining the keys and had many questions about where they came from. When I told them they were found in the drawer of a captain's desk from an old naval ship in Scotland, they were even more interested!

(L) Children are invited to make pattern discoveries. (R) Discovery bins containing items such as paint samples, foam board, paper trimmers, and glue lead to many engaging sessions as the children create their own mosaics.

Egg-carton 10-frames, cubes, and paper to print number sentences showed me how capable my students were of creating and representing equations. I was shocked! Later in the week, I added dice and spinners to generate numbers for equations.

So what do I do while my students are engaged with discovery bins?

- I circulate around the room and observe.
- I ask questions to encourage children to investigate further, become more involved with the materials, and challenge them to take their learning to the next level.
- I make assessment notes in children's Evernote folders (an application that allows me to store and share children's work and accomplishments with families digitally).
- I take photographs of what children have created and post them on our classroom Facebook page, Twitter account, and Instagram.
- I encourage children to use their tablets to photograph their work. We are just learning how to make photo collages on our tablets and use Instagram, so that is an exciting new way to share what we are doing with discovery bins.

(L) Part-whole thinking. (Centre) Float and sink discovery.
(R) Alphabet discovery.

Field Trips

Field trips can often build upon children's interests, spark inquiries, and offer you and your students the chance to go deeper and further in your learning. Field trips should be developmentally appropriate and allow some choice and play as part of the experience.

Purposes

Field trips

- give participants pleasure in going somewhere together as a group and being able to talk, discover, and share the learning
- contribute naturally to oral language development
- provide stimulation and motivation before introducing a topic or as a follow-up to learning (e.g., zoo, farm, bakery, grocery store)
- satisfy the curiosity that has developed at a centre of interest (e.g., farm, creamery, hatchery)
- provide opportunities to launch a project, inspire the transformation of a learning centre, or provide a culminating activity following a unit or centre-of-interest project
- provide opportunities to practise social behaviour (e.g., a visit to a personal care home)
- provide experiences that some children may not have had (e.g., boat, train, bus, museum, airport, supermarket, pumpkin farm)
- provide cross-cultural experiences
- build connections between children, your school, and the many resources in your local community

Special Considerations

The success of the field trip will depend on careful planning. If possible, preview the area to be visited to make certain that the facilities are adequate.

- Is there a safe place for arrival?
- Are toilet facilities available?
- If any children in your classroom have mobility challenges, is the destination accessible?
- How many people will be required to supervise the children?
- Is there someone who can be placed in charge if you are suddenly incapacitated or must go with a child if an emergency develops?
- What expenses are involved?
- Can travelling at peak periods be avoided?
- Are you using public transit?
- If bus tickets are to be bought, can all children experience purchasing their own tickets or should one person buy them all? (In Winnipeg, children five years of age and younger ride free when accompanied by a fare-paying adult.)
- Will there be an opportunity to obey traffic signals?
- What signals will be used to indicate where the group is assembling?
- Should space be reserved?
- What might the children learn?

Children can assimilate only so much on each visit, so expectations should be developmentally appropriate. Consider carefully whether the same learning outcome(s) can be achieved by inviting a guest speaker to visit your classroom as an alternative to taking a group of children on a long trip.

Does the field trip build on learning in which children are already involved? For example, does a visit to an animal hospital build naturally on the children's interest in pets or is it an isolated and unconnected destination chosen for the sake of going somewhere in the final weeks of school?

(continued)

Field Trips

Through discussion in class, books you have read together, and learning opportunities during choice time or teacher-guided times, the children should be well-prepared for what they may see on a field trip and how they will be transported and assembled. Alert them to observe special features, and have them report on their experiences after the event. The children should become familiar with the vocabulary they will need en route.

Several well-planned short trips are likely to be of more benefit to young children than one long, tiring excursion. There are many interesting destinations to visit within walking distance from most schools. A valuable goal for a field trip is to give children the chance to explore their own community and to talk about those experiences together afterwards.

Destinations

You may wish to plan a field trip

- around a city block to see and record the types of homes, growing things, birds, and people you see along the way (remember to bring a digital camera and clipboards)
- to the zoo to see certain animals in particular, but with free time for other explorations
- to a farm
  (A visit to a farm can be one of the most satisfying trips for city children, but requires detailed advance preparation. On one very successful trip, children were able to handle baby animals, ride on a wagon attached to a tractor, sit on farm machinery, and eat their lunch in the hayloft. During the afternoon group activities, all students, in turn, shared experiences such as
  - watching the farmer milk a cow by hand and seeing a calf fed
  - going into the dairy barn to watch milking by machine
  - watching the farmer drive a combine one round of a field
  - going into the honey house to watch the honey extractor and to taste honey on crackers

  Most parents were so impressed with the excitement and the learning generated by this trip that they wanted assurance that it would become an annual event so their younger children would get the same opportunity to see a farm in operation.)
- to local entertainment events, such as Kidfest: The Winnipeg International Children's Festival
  (Many organizations that offer evening performances will put on a matinee if their show is suitable for children and they can be assured of an audience.)
- to a bakery, ice-cream parlour, or some simple local industry that children can understand
- to a personal care home
  (Many residents in these homes miss seeing children, and arrangements can sometimes be made with the directors for regular monthly visits. Children usually present a program of their games, finger plays, choral speaking, songs, dances, and so on. In return, a few of the residents can be involved as volunteers in a Kindergarten classroom—for example, reading to children in small groups.)
- to another classroom, a library, grain elevator, post office, local park, building site, police station, hatchery, doctor's office, veterinary office, fire hall, or hair salon
- to a child's home to see a new baby, pet, tree house, or garden (pre-arranged with the family)

(continued)

- to a pet store to buy a class pet
- to a grocery store to purchase the ingredients for a cooking activity
- to a nursery school or a child care centre where Kindergarten children can share with younger children something about what they will learn once they, too, can attend school
- to a forest or nature park, such as Living Prairie Museum, Oak Hammock Marsh, or Sandilands Forest Discovery Centre
- to a parent's workplace (as appropriate), such as the destinations mentioned above (In one classroom where children were especially interested in tall buildings, the teacher organized a trip by Winnipeg public transit to Portage Ave. and Main St. to see the Richardson building where one child's mother worked. The chance to count the 34 storeys and to draw the building on their clipboards was topped only by the experience of taking the elevators up to the mother's office, where the children were amazed by the view of the city! On returning to school, the children talked freely, developing and practising their new vocabulary and writing about what they saw.)

Extensions

- **Literacy extensions:** Plan to send letters of thanks to people who helped on a field trip, and have the children draw or paint a picture of something they enjoyed on the trip. The letters could be developed as experience charts, which may then be sent to the people concerned. Occasionally, the recipients display such charts along with the pictures the children painted or drew, and may be the means of creating community interest in further field experiences for the children.
- **Physical education/health education extensions:** In advance of your field trip, you can practise school bus safety and address the following learning outcome when you help prepare children to ride the bus to their destination: Identify safety symbols, hazards, and risks in everyday living (K.3.K.B.1). At your circle or opening meeting, have children look at pictures of school bus safety. Have them identify the safety rules by showing thumbs up if it is a safety rule, or thumbs down if it is not a safety rule. During free play, you can help simulate a bus trip in class using chairs as bus seats. Observe children as they participate in the bus safety activity. Do they sit down and remain seated in the "bus"? demonstrate polite and respectful behaviour? keep their voices down? remain outside the bus danger zone?

Field Trips

When communicating about field trips with parents who are EAL learners, consider using an interpreter to convey pertinent information, especially as it relates to informed parental consent and completion of consent forms.

Field trips may cause anxiety for some children. Providing pictures and images to EAL learners prior to a field trip may help reduce anxiety and provide some vocabulary that will help prepare the children to meet their learning goals during the trip.

As appropriate, consider trips to culture camps and points of interest with a First Nations, Métis, or Inuit focus. (Search the Manitoba Historical Society website for destination ideas.)

Vignette: An Inquiry about Maps

In an inquiry about maps, children learned that maps are abstract representations of their world. During a simple field trip—a walk through the neighbourhood around their school—children took photographs of interesting features along the way. As the children walked, their teacher helped them to notice the traffic signs they passed along the way, such as stop signs, traffic lights, crosswalks, and railroad crossings. They took photos of some of these, too. This mindfulness of the signs they passed helped to address the physical education/health education learning outcome, Identify safety symbols, hazards, and risks in everyday living (K.3.K.B.1), as well as safe travel, starting and stopping, rules, and safe play.

Later, the children used the photos from their walk to remind themselves of what they saw as they transferred that knowledge to maps of their neighbourhood. The map-making inquiry helped children to transform what they knew and had experienced into personal understanding and to define their own relationship to the community that surrounds "their" school (McCann).

As the children made their maps, they certainly gave their maps form, meaning, and personal insight, supporting the observation that children give shape to their experience (Malaguzzi, as cited in McCann 18). They communicated their points of view through their drawings and conversations with their peers during their walks and as they drew. These maps were not preconceived by their teacher; rather, children had the power to shape their own maps in ways personally meaningful to them. Once the maps were posted, children enjoyed looking at each other's maps, commenting on features their friends included, which might be the same as or different from the features that appeared in their own maps.

(Top and Bottom R) Children draw their maps using photos of their neighbourhood walk to remind them of what they saw.

(L) Children's maps and writing are displayed with the books that inspired them.

Learning Occurs Everywhere

While this chapter provides many ideas for learning centres you can set up in your classroom, learning also occurs in settings that are not marked out on the teacher's floor plan. According to Greenman, "it is important that embedded in the [Kindergarten] program culture is the understanding of the broader conception of language, art, math, science, and other topic areas: language (and math, science, art, etc.) is everywhere and inherent in nearly all activities" (222).

Vignette: Sorting Winter Boots

One teacher shared the rich learning that occurred early in the winter, as children began to sort and match the jumble of winter boots in the hallway outside their classroom door. Children categorized and classified boots by gender, colour, and size, counted by 2s once they had matched all the boots, sequenced boots from smallest to largest, and created a sign to remind each other to line up boots neatly before coming into the class. The spontaneous learning that occurred was neither on the schedule nor on the floor plan, but children were highly engaged in their self-initiated learning.

Vignette: Tree Discovery

In one Kindergarten classroom with large windows looking out into the green space, children noticed one tree growing by itself in their direct field of view. They were intrigued by the changes they noticed happening to "their" tree and became very possessive and protective of it. The tree outside their classroom window became an incredibly rich and always changing nexus for children to explore and discover, demonstrating that learning is not limited to a space organized by a teacher.

The teacher responded to the children's interest in this particular tree by addressing learning outcomes in science, education for sustainable development, arts education, and English language arts. She encouraged the children's observation skills and recorded their responses about how their tree was changing through the seasons. Taking photographs of her class of children in front of their tree through the seasons helped children mark the passing of time in a meaningful way.

As the weeks and months of school went by, children gathered under the shade of the tree for group story time; one friend whispered secrets to a friend under its protection; small groups relaxed under it to listen to its leaves rustling; and individuals reflected and daydreamed under its canopy. Children played tag around the tree and used its trunk as their "home-free" spot. They watched, counted, and graphed the winter birds that visited the tree to eat the seeds from the feeders the children made and their teacher hung.

The children and their teacher took the bin of crayons outside to make bark rubbings from their tree, talking about the smell of the tree bark and its texture, as well as what colours they saw: brown and black, but also yellow and green. Later, they created a tree in their classroom, using their own crayon rubbings to build it. The teacher used this opportunity to introduce some new "tree" vocabulary,

such as *branches, crown, trunk, roots,* and so on. As spring arrived, children rejoiced to see the buds emerging on their tree. To celebrate, they read Shel Silverstein's *The Giving Tree,* sitting in a circle around the tree trunk. When the children noticed caterpillars on the tree, they created their own caterpillars out of egg cartons, and added these to their tree model.

(Top L) The tree in bud early in spring. (R) Children were photographed in front of their tree in fall and winter.

(Middle L) A tree-discovery bin was added to the classroom environment to help children further explore their interest. (R) Children built a tree of their bark rubbings.

(Bottom L) During group time, children collaborated through interactive writing to create a list of tree attributes and seasonal changes and to illustrate them. (R) Children showed how they could transfer and apply their prior knowledge when they added their own labels to a tree poster in another part of the classroom.

Reflection: Redesigning a Learning Centre

Think about one learning centre in your current classroom that you might like to redesign.

- What are you dissatisfied with in its current incarnation?
- What changes could you make to create a more child-directed learning centre?
- What changes could you make to create a tighter connection between home and school?
- What changes could you make to respond to children's own inquiries?

Summary

This chapter presented many ideas for learning centres that teachers may add to their classrooms to create playful sites for learning by individuals and small groups. This learning crosses all developmental domains and all Kindergarten curriculum outcomes. Chapters 7 to 9 will help you to integrate children's learning in your various learning centres and through teacher-guided focused experiential learning, with an intentional focus on curriculum outcomes.

Continue Your Learning

To learn more about cooking with children, look for these resources:

- Colker, Laura J. *The Cooking Book Fostering Young Children's Learning and Delight.* Washington, DC: National Association for the Education of Young Children, 2005.
- Dairy Farmers of Manitoba. *Teachers.* <www.milk.mb.ca/Teachers/> (17 Oct. 2014).
  This website provides an overview of Manitoba curriculum outcomes that are supported by the instructional activities in the nutrition education manuals available from Dairy Farmers of Manitoba. On this website, you may find some food-related resources such as posters, picture cards, and puzzles.
- Weitch, Beverly, and Thelma Harms. *Cook and Learn: Pictorial Single Portion Recipes: A Child's Cookbook.* Menlo Park, CA: Addison-Wesley, 1981.
  This publication is long out of print, but is still a favourite of many Kindergarten teachers. You may find it in libraries or online.

For more information about diversity, see:

- Burman, Alka. *Honouring Diversity in Early Childhood Materials.* 27 Aug. 2011. Child Development Resource Connection Peel (CDRCP). <www.cdrcp.com/pdf/Anti%20Bias%20Resource%20Booklet.pdf> (20 Oct. 2014).
  To help you reflect on how you honour children's diversity within your own classroom, also see Burman's related checklist *Honouring Diversity in Early Learning Environments*, available on the CDRCP website at <www.cdrcp.com/pdf/Honoring%20Diversity%20checklist.pdf> (20 Oct. 2014).

- Child Australia, Professional Support Coordinator. *Cultural Connections Booklet.* <http://childaustralia.org.au/Resources/Cultural-Connections-Handbook.aspx> (20 Oct. 2014).

For more information about play, see:

- National Association for the Education of Young Children. *Play and Children's Learning.* <www.naeyc.org/play/> (17 Oct. 2014).

For field trip destinations with a First Nations, Métis, Inuit, or other historical focus, see the following website:

- Manitoba Historial Society. Home Page. <www.mhs.mb.ca/> (20 Oct. 2014).

Chapter 7:

The Learning Landscapes

Chapter 7: The Learning Landscapes

Guiding Principle: The Learning Program

The Kindergarten learning program provides many opportunities for child-initiated play supported by engaged and intentional teachers, in balance with more focused experiential inquiry guided by teachers.

A Holistic Approach

When working with children who are learning English as an additional language, take a holistic approach that includes responding to their stage of English language proficiency, in addition to their overall development and interests.

The Provincial Curriculum within the Kindergarten Setting

As you strive to maintain child-centred, play-based, and developmentally appropriate practices with young learners, it is important to understand how the provincial subject-area curricula fit with the Kindergarten setting. Chapters 7 to 9 of this document take a closer look at the focus and connectivity that the provincial curriculum brings to learning in a play-based environment.

"In the hands of a skilled kindergarten teacher, play is a rich laboratory that can be used to teach multiple concepts simultaneously in a way that differentiates instruction" (Graue, *Reimagining Kindergarten*).

The metaphor of *learning landscapes* provides you with an approach to Manitoba's Kindergarten curriculum that uses an inquiry-based process of learning to encourage children to "activate, acquire, and apply knowledge" and responds to children's emerging interests. Chapters 7 to 9 address the following big ideas (overarching understandings):

- children's multiple ways of knowing
- processes for creating rich learning contexts that support children's inquiry
- designing deeply integrated curricular learning and assessment
- snapshots of Manitoba's Kindergarten curricula
- departmental priorities (*integratables*) that are infused across all subject areas and for all children throughout the Kindergarten day

These big ideas are illustrated with examples of practice in the disciplines (or subject areas) and with classroom vignettes.

You need to be familiar with the curricula of the disciplines to set appropriate instructional goals for your students and to "seed" play contexts with materials and scaffolding that promote deeper learning processes (Graue, *Reimagining Kindergarten*). You can then identify opportunities to invite children to extend and deepen the questions that arise during play into learning that connects with the curricular areas. Children are at the centre of their own respective and shared learning landscapes.

The Role of the Curriculum in a Play-Based Environment

As children ask questions and play with language, gain physical and social skills, and interact successfully with adults and peers, they are laying the foundation for lifelong learning. Play centres may be used to explore new ideas and concepts, provide strategic instruction, or give children time to practise and consolidate new learning. While at learning centres, children

- imagine, experiment, and create to learn through play
- make their own inquiries
- further develop their independence in making choices, problem solving, time management, and personal responsibility

For more about this play-based approach, see Chapter 6.

Complex make-believe play and child-initiated inquiry foster habits of mind (such as curiosity, problem solving, taking different perspectives, and creativity) that lead to and show evidence of intellectual engagement. The various subject areas within the provincial curriculum represent different ways of exploring and thinking about the world, but they are ideally introduced through holistic, cross-curricular learning approaches. As the teacher, you guide learning with rich experiential and inquiry-based opportunities that follow the child's readiness and interests. Such playful learning naturally supports the development of language, literacy, and other ways of interacting with the world.

Children's Kindergarten experiences shape their motivation and approaches to learning in subsequent years. Children bring to Kindergarten a wide range of experiences, personal interests, and family, linguistic, and/or cultural backgrounds, which should be respected and drawn upon wherever possible. When you are guided by the children's voices and their natural development, as well as by social and contextual factors, the provincial curriculum helps children from diverse backgrounds to acquire foundational knowledge, skills, and attitudes that prepare them for life and future school-based learning. In the process, children will develop and enrich their self-identities as confident and active learners.

Although Kindergarten is often the starting point for the journey across the landscapes of "academic" learning, and the first step toward formalized inquiries in the disciplines, this learning is not a linear, systematic march to a distant horizon, but a child-centred exploration of the features along the way, guided by the teacher's knowledge of what is important. Such learning will be integrated, holistic, and play-based, and will lay the social and intellectual groundwork for later schooling.

The provincial curriculum frameworks do not attempt to standardize young learners, but identify the knowledge, skills, processes, and ways of thinking—usually referred to as learning outcomes, practices, or recursive learnings—needed to relate to particular subject areas. The disciplines (or subject areas) provide the lenses through which children can view and make sense of the world. The teacher creates many opportunities for children to experience ways of thinking like a scientist, a mathematician, a writer, or an artist. Curriculum frameworks also support you in planning for and assessing the learning of students who will be at different places in their respective learning landscapes.

Well-planned Kindergarten learning programs provide you with numerous opportunities for year-round observation and authentic assessment of

- children's strengths and interests
- emerging developmental and learning landmarks
- areas of children's knowledge, skills, and processes that require development
- ways to support individual children's learning

Learning Landscapes: Multiple Ways of Knowing

As discussed in the introduction to this document, *learning landscapes* can support the way you plan to address the Kindergarten curricula in your play-based environment. The various curricula themselves and the classroom environment are learning landscapes—both are the contexts in which children explore and engage in meaningful inquiry. Think of Kindergarten as a full landscape of knowledge where educators and children meet in the work of active, embodied learning. How children interact with and travel through a landscape is affected by the lenses of the disciplines.

Educators and children are invited into the living field of education through curricula designed to place students in the dynamic, complex, working culture of the disciplines or subject areas. The different curricula identify the signposts (generally referred to as learning outcomes) that teachers use as they help children navigate through the learning landscapes. Learning occurs when teachers consider both the landscape and the traveller. However, children will take "different paths to common outcomes in learning" (Clay, *Becoming Literate* 23).

The following landscape image and questions (see Figure 7.1) provide a way of understanding children's multiple ways of knowing. Rich learning is possible when you use these questions for both long-range and daily planning.

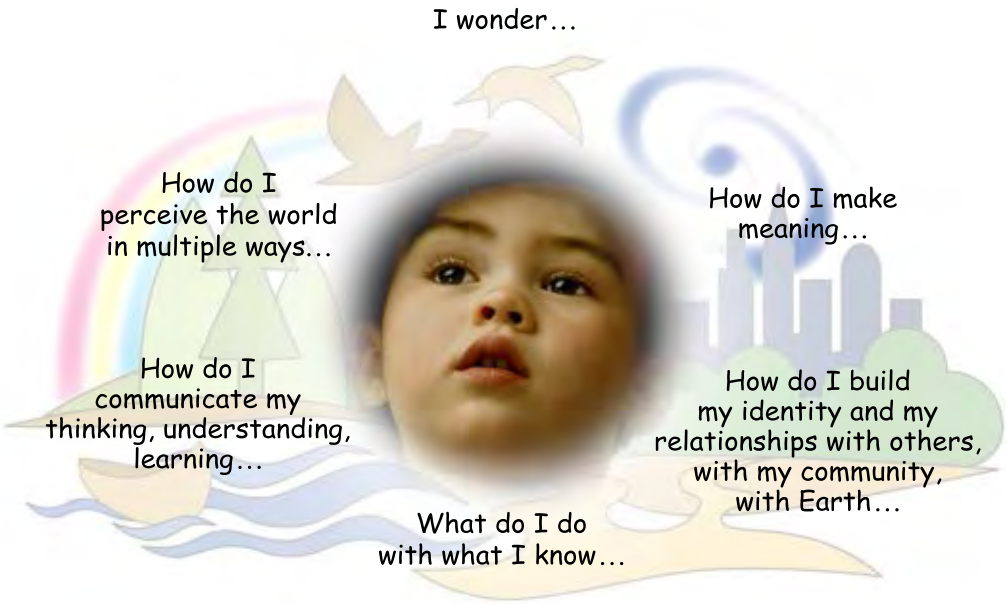


Figure 7.1: A Child's Multiple Ways of Knowing within the Learning Landscapes

Learning in a Kindergarten classroom grows and evolves, much like the learning that happens on a trapline:

> When I want my grandson to learn about trapping, I take him out with me on the trapline. And when we are out on the land, I teach him about the things he needs to know. I don't teach him all those things first, like the animal tracks, how to set traps, where to set the traps, what trails to take. If I did that he would never get to go out. We would starve. (Personal communication, Cree Elder, as cited in Western and Northern Canadian Protocol for Collaboration in Education 3)

The curriculum is not doled out one piece at a time in a fragmented linear fashion. Rather, learning is as complex as the landscape is. When teachers provide many purposeful experiences that invite children to view the landscape through the disciplinary lenses, the children begin to discover, interact with, and understand their world.

Deeply integrated approaches to curriculum and learning allow your young learners multiple ways of moving through rich, meaningful, and varied landscapes. The process of becoming aware of and interacting with the world is not linear—as the child moves about the landscapes, particular questions will direct the journey at different times:

- **How do I perceive the world in multiple ways . . . ?**

  Children become aware of the world in many different ways, and where children stand affects what they see in the world. Be aware that children's perceptions of the same experiences may differ.

- **How do I make meaning . . . ?**

  Children will make meaning of the world in a variety of ways. Provide multiple opportunities for children to make meaning, both by supporting

children's strengths (e.g., drawing) and by encouraging other ways of making meaning.

- **How do I communicate my thinking, understanding, learning . . . ?**

  Carefully observe children's ways of communicating, as their communication strategies may look very different from those you expect. Children are at different points in developing spoken and written language to express their emotions and understanding, and to manage social and learning interactions effectively. They may prefer to communicate in their first language, through the arts, or through demonstrations (see the vignette in Chapter 4 of the boy who danced his story). Look for the substance of children's communication and provide opportunities for children to develop a range of effective communication strategies.

- **How do I build my identity and my relationships with others, with my community, with Earth . . . ?**

  Children need opportunities to apply their learning in various places in their lives so that it becomes purposeful for them.

- **What do I do with what I know . . . ?**

  Every experience in the Kindergarten classroom builds children's identities, both as individual learners and as valued and capable members of the learning community and the world beyond.

Appendix Q: The Learning Landscapes: Multiple Ways of Knowing applies the questions surrounding the child in Figure 7.1. For convenience, the child's questions are presented in columns within the chart in Appendix Q.

By understanding the variety of possibilities within each question, the teacher can provide many opportunities for children to perceive, make meaning, communicate, and build identity and relationships within rich learning contexts, while reliance on adult-generated "themes" may actually limit children's ability to experience the breadth and depth of integrated curricular experiences.

Kindergarten children learning English as an additional language (EAL) inquire, learn, think, connect, represent, and communicate in both their first language and in English. Their ability to think and learn in English will vary. When the language used in the classroom (English) is unknown or still developing, all aspects of the learning landscapes are affected. The challenge is to foster learning a new language at the same time that this new language is being used for thinking, instructional purposes, and content area learning.

As emerging bilinguals, children who are learning EAL are also learning to *learn, think, inquire, connect, represent,* and *communicate* in English. When reflecting on the previous questions for the purposes of planning and implementing appropriate classroom experiences for EAL learners, teachers and schools need to take into account the students' general EAL development.

Rich Learning Contexts

Rich learning contexts provide a focus for learning and give your students multiple entry points and directions through which to explore big ideas (overarching understandings) that have enduring values beyond the classroom. You may develop plans for inquiry, units of study, or learning experiences related to and developed within one or more of these broader contexts. Such contexts invite you and your students to explore meaningful questions. Questions can be explored through the subject area curricula (disciplines). These questions permeate each inquiry, and each unit of study or learning experience. Broad, integrated contexts create opportunities for possible questions from learners, which lead to deep, meaningful exploration and thinking.

Appendix R: Rich Learning Contexts provides many potential questions from learners to support inquiry. Some of the suggested questions may seem mature for Kindergarten children, but the children can begin learning ways of inquiry and thinking within their own surroundings.

Wondering and wandering must include examining topics, ideas, and questions as broadly as possible from many different perspectives and through conversations and observations. Such experiences invite young learners to go beyond what they already know and to develop broader understandings from which their own inquiries emerge and develop.

When you and your Kindergarten students delve into their questions, you may negotiate their wonderings with curricular expectations as the inquiry plays out. Keep in mind that the content, skills, and ways of thinking are inherent in the various disciplines. Think about how children use their senses as they learn about their environment, what questions they have, how they decide to find answers to their questions, and so on. In this way, concepts such as trees, shapes, language, and taking care of our planet are lived out with more depth and in personally relevant ways.

The disciplines also allow learners to explore questions and ideas from multiple perspectives. For example, as the children in your classroom are digging into ideas about the environment, you may respond to and guide their wonderings about trees as they emerge. Such an opening might prompt you and the children to examine the concept of trees for their purposes, functions, and makeup; trees may become inspirations for story creation; shadow and light in relation to trees may provide opportunities to reflect on shape and space; and children may explore the sound of trees through music. The disciplines create opportunities for young learners to perceive the tree differently and to make and communicate meaning.

Within such larger learning contexts, curricular outcomes anchor your focused observation and planning for strategic instruction. See Chapter 4 for more information about how observation informs and guides the intentional teacher's planning.

Vignette: Builders in the Learning Landscape

The following vignette provides a snapshot of a creative teacher, Ms. Smith, as she applies the ideas behind the learning landscapes in her daily work with young learners in Kindergarten. Here you will see the teaching, learning, and planning processes across much of the Kindergarten curriculum, including English language arts, mathematics, science, and social studies.

Ms. Smith's Kindergarten classroom is vibrant with excitement and abundant possibilities as she reflects on the various learning centres available to her students. Some children are engaged in inquiry-based learning at the block centre where a few children are creating plans for their structures. Several of the children begin to talk about ways to build a very tall block tower so that it will not fall down. Others seem to be building enclosures with sloping walls around a large open space. Ms. Smith realizes that the children are excited about the new stadium being built not far from their school. She attends carefully to the children, and gathers information by observing students and documenting "stories" from the block centre to help her planning.

Her documentation demonstrates that the children are trying to build taller and taller structures, as well as large open spaces encircled by walls. She purposefully adds various shapes and sizes of blocks, including cylinders, prisms, and pyramids (commercial and non-commercial) to the 3-D block centre. She encourages building complex buildings in order to support children's understandings of 3-D representations of our world.

Children build tall structures using unit blocks.

Some boys are building with blocks.

Overheard at the Block Centre:

"I am going to put the big block on the small block and make it tall," describes Nick as he is building a structure in the block centre. The building he is trying to create crashes under the tenuous weight load.

"Oh no!" laments Nick. "Why did that happen?" He is looking at the pile of blocks of various shapes and sizes to determine the cause.

"What else could you have done?" prompts Ms. Smith.

"I could have used a different block on the bottom?" inquires Nick.

"That happened to me," joins Matthew. "I used the big ones on the bottom."

"The big ones look different," replies Nick.

"They are different sizes," adds Susie, "and they have sides!"

"Tell me how they are different," encourages Ms. Smith. Several other young learners join in the conversation as Nick ponders how the blocks are different.

"This one is a rectangle," announces Matthew.

"So you are saying they are different shapes," surmises Ms. Smith.

"Yes!" say the children.

"I **wonder** if shapes matter when you're building?" asks Matthew.

And so, the children's inquiry into how our community is shaped begins. Inquiry processes focus on the development of powerful questions, just like the one Matthew poses: "Do shapes matter?"

Based on her initial documentation and reflection (see sidebar, right), Ms. Smith begins to consider how she will plan for children's learning, using the Inquiry Planning form (see Appendix E) to which you were introduced in Chapter 4. She chooses the social, cultural, and historical learning contexts for children to examine their community and make meaningful connections to how communities are built and shaped. She uses the questions children ask as her reflective lens, and watches for ways children are making meaning, building relationships, and wondering.

Over the next few days, Ms. Smith sees children sharing their ideas and their resources. Together, they create theories about what will work best, and then test them out. Children model teamwork as they strategize together, encourage one another, and willingly cooperate. She watches carefully for the learning outcomes that are emerging, and intentionally targets some others she has not yet observed. As the children work, they demonstrate the many things they already know about the community they live in and the many Kindergarten learning outcomes they are in the process of mastering. They count aloud, name the shapes and colours of the blocks they are using, and use reference books about construction and tall buildings to inform their decision making. Some children create signs, while others create blueprints, like the one Ms. Smith added to the block centre to extend their ideas about their buildings. Children use a portable whiteboard to represent their 3-D building ideas in a 2-D format, a learning activity that really stretches their thinking.

Documentation and Reflection

Inquiry Questions and Ideas

- I wonder if shapes matter when you build?
- What do construction workers use when they build tall structures?

Learning Invitations (Provocations)

Ms. Smith considers how she can enhance the learning environment to support children's inquiry further. She decides to add some additional materials to the block centre: new block shapes; books about construction and about football and soccer; blueprints, clipboards, large sheets of drawing paper, graph paper, and carpenter's pencils; reflective vests, ropes, and pulleys; and measuring tapes, string, levels, and interlocking cubes.

Learning Contexts

Social, cultural, and historical (for more about these ideas, see Appendix R: Rich Learning Contexts)

Questions Supporting Inquiry

- How are buildings and communities shaped?
- What do you think would happen if you built your wall even taller?
- What do you wonder about the stability of your buildings?

As she interacts with the children in her classroom, Ms. Smith uses some specific strategies to promote mathematics skills that encourage the children to go further and deeper in their inquiry. She asks children how many blocks they have used in total to build their stadium, and provides clipboards and pencils nearby to facilitate that investigation. Children measure the height and the width of their stadium and tower, and can choose from a variety of materials (measuring tapes, string, or interlocking cubes) to apply their numeracy skills through play. Children can record their findings on graph paper as they work.

Children represent their 3-D building ideas in a 2-D format.

Ms. Smith knows that block play allows many opportunities for experimenting with representational building, as children work with patterns, symmetry, and design. Block play encourages children to use language to inquire, to test, and to collaborate with others. Such a context also allows Ms. Smith to use descriptive language and the language of the disciplines in meaningful ways. Children can, therefore, hear and use the practices (or the ways of thinking and talking) in mathematics and science. For example, Ms. Smith and the children use language to make predictions or hypotheses (e.g., what if . . . , I think that . . . because . . .) and connect the discipline-specific language to describe what they observe, such as height, gravity, balance, action and reaction, and cause and effect. Ms. Smith and the children add words she has been using with the children to the classroom wall for easy reference. The clipboards, carpenter's pencils, large chart paper, and books help children to apply their literacy skills during their playful learning. Ms. Smith ensures that choice time is at least 45 minutes to an hour each day to provide the large uninterrupted blocks of time the children need during this exciting time of learning.

Over the next few days, while interacting with the children, Ms. Smith documents their learning and successes with their complex building, using her computer tablet (with photos and short video clips). This pedagogical documentation allows her to collect evidence of children's learning, which she can share with the children and their families. There are many opportunities for authentic assessment during the inquiry.

Curricular Connections in This Vignette

This brief vignette demonstrates many cross-curricular connections that are part of this learning experience, including (but not limited to) the following:

Cross-Curricular Connections

English Language Arts

- Language as Sense Making
  - Access, use, build, and refine schema.
  - Use a variety of strategies.
  - Be aware of and articulate own ways of engaging with text.
- Language as System
  - Recognize, apply, and adapt rules and conventions.
  - Identify, analyze, and apply understandings of whole-part-whole relationships.
- Language as Exploration and Design
  - Research and study topics and ideas.
  - Interpret and integrate information and ideas from multiple texts and sources.
  - Manage information and ideas.
  - Invent, take risks, and reflect to create possibilities.
- Language as Power and Agency
  - Recognize viewpoints in texts and ideas.
  - Investigate complex issues.
  - Contemplate the actions that can be taken, consider alternative viewpoints, and contribute other perspectives.

Social Studies

0-KL-015* Identify familiar places and landmarks.

0-KL-016 Recognize globes, maps, and models as representations of actual places.

Mathematics

K.SS.1 Use direct comparison to compare two objects based on a single attribute, such as length (height), mass (weight), and volume (capacity).

K.SS.3 Build and describe 3-D objects.

K.PR.1 Demonstrate an understanding of repeating patterns.

Science

K-0-1a. Ask questions that demonstrate a curiosity about living things, objects, and events in the immediate environment.

K-2-01 Use appropriate vocabulary related to their investigations of colours.

K-0-4a. Manipulate materials purposefully.

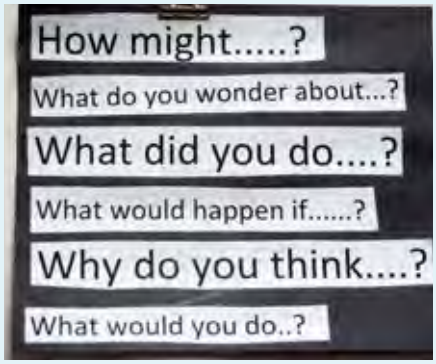
* The specific learning outcome codes are identified in the respective curriculum framework documents.

Chapter 8 of this document provides snapshots of the core curricular areas and further highlights some of the many curricular connections and learning targets/expectations planned for this inquiry (and in other stories shared by Kindergarten teachers).

Reflection: Teaching and Learning Processes

Think about the ways you create learning environments that provide opportunities for children to explore their own interests while working toward meeting curricular targets/expectations in meaningful ways.

How do you facilitate your students' learning by respecting their thinking and allowing them to construct understanding through "hands-on" AND "minds-on" explorations? The reflective questions in the following chart are linked to teaching and learning processes and can support your important thinking about these ideas. You can read more about designing learning environments in Chapter 5 and about strategies for teaching and learning in Chapter 4.



Children's inquiries are supported through open-ended questions such as these.

Reflecting on Teaching and Learning Processes

Teaching and Learning Process	Reflective Questions
Contexts	■ What are the children's interests and ideas? ■ How are the children's interests aligned with the curriculum? ■ What is the nature of the geographical, environmental, familial, social, linguistic, and cultural contexts in which the children live? ■ How can I create invitations for learning? ■ What is meaningful to children? ■ What questions do children have about the context?
Curricular Targets/ Expectations	■ How will I integrate curricula? ■ What do children know and what are they able to do? ■ How will I focus instruction and learning within meaningful play/ inquiry contexts? ■ Which curricular expectations will be my focus?
Observing and Documenting	■ What is happening now? ■ What does this mean? ■ What are the children's thoughts? ■ How are children communicating and representing their thinking? ■ What are the children's responses to new situations? ■ How can I scaffold their learning? ■ Where do we go next? ■ What is the purpose of the documentation? ■ How will I gather and organize the documentation? ■ Where will I keep the documentation? ■ Who is interested in this documentation? ■ What will I do with this documentation?
Planning for Learning	■ What do I see? hear? ■ What is happening? ■ How can I pose a problem and ask questions to provoke deeper thinking and understanding? ■ How can I challenge children's thinking? ■ Who is involved? ■ How can I support the children? ■ What materials or ideas will I use to build on what I see? ■ What do others think? ■ How can I encourage more in-depth thinking and investigation?
Assessing and Evaluating	■ What does the documentation show about students' learning in relation to curricular expectations? ■ What does the child know, do, and feel? ■ What is the child's depth of understanding? ■ What learning strategies does the child demonstrate? ■ How are children thinking at higher levels? ■ How can I communicate what I have learned about the child? ■ What does this mean for instruction?

Summary

In this chapter, you read about and reflected on children's multiple ways of knowing and their respective journeys through their various learning landscapes in your Kindergarten classroom. In Chapters 8 and 9, you will consider how to apply inquiry-based planning and backward-design approaches to specific curricular outcomes and integratable elements in child-centred, play-based, and holistic ways.

Continue Your Learning

For more information about learning landscapes, see:

Friesen, Sharon, and David Jardine. *21st Century Learning and Learners*. Prepared for Western and Northern Canadian Curriculum Protocol by Galileo Educational Network. 2010. Available on the Alberta Education website at <http://education.alberta.ca/media/1087278/wncp%2021st%20cent%20learning%20(2).pdf> (16 Apr. 2015).

Western and Northern Canadian Protocol for Collaboration in Education (WNCP). *Guiding Principles for WNCP Curriculum Framework Projects*. Jan 2011. <www.wncp.ca/english/subjectarea/projects.aspx> (27 Nov. 2014).

To read more about inquiry learning and teaching, see:

Manitoba Education and Youth. "Chapter 6: Integrated Learning through Inquiry: A Guided Planning Model." *Independent Together: Supporting the Multilevel Learning Community*. Winnipeg, MB: Manitoba Education and Youth, 2003. 3–18. Available online at <www.edu.gov.mb.ca/k12/docs/support/multilevel/index.html> (5 Feb. 2014).

Chapter 8:

Play throughout the Kindergarten Curriculum

Chapter 8: Play throughout the Kindergarten Curriculum

Guiding Principle: The Learning Program

The Kindergarten learning program provides many opportunities for child-initiated play supported by engaged and intentional teachers, in balance with more focused experiential inquiry guided by teachers.

Kindergarten Curricula at a Glance: Snapshots of the Core Curricular Areas

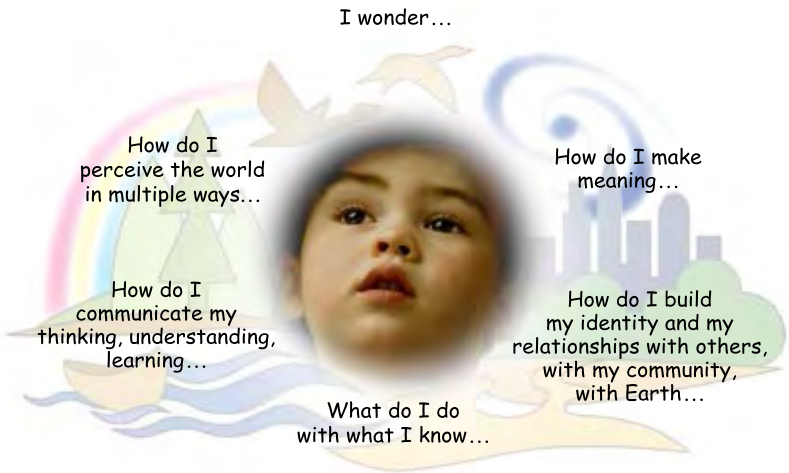


Figure 8.1: A Child's Multiple Ways of Knowing within the Learning Landscapes

Chapter 7 offered you the opportunity to wander and wonder through the learning landscapes, reflecting on how this metaphor can support your role as a teacher of young children (refer to Figure 8.1). Chapter 8 provides snapshots of the core curricular areas, with many rich examples of play throughout the curriculum, and useful teaching strategies shared by provincial curriculum consultants and classroom teachers.

Snapshots are provided for the following Kindergarten subject areas:

- arts education
- English language arts
- mathematics
- science
- social studies
- physical education/health education
- English as an additional language

Each snapshot provides a description/overview of the subject area curriculum, gives the rationale for its importance, explains the organization of the curriculum, discusses what a curriculum-rich learning environment looks like in Kindergarten, and lists resources for the respective subject areas.

You can access detailed general and specific learning outcomes for each subject area at the following website:

Manitoba Education and Advanced Learning. *Curriculum/Subjects.* <www.edu.gov.mb.ca/k12/cur/index.html> (12 Nov. 2014).

The Manitoba English language arts curriculum is currently being renewed. You can access information and processes for reflecting on the new curriculum in the group Reflecting on and Moving Forward with a New English Language Arts Curriculum at the following website:

Manitoba Education and Advanced Learning. *Manitoba Professional Learning Environment (Maple).* <www.mapleforem.ca/> (20 Nov. 2015).

Artists: Chad Reeves, Fred Thomas, and Graffiti Art Programming. Used with permission.

Arts Education Landscapes: Dance, Drama, Music, and Visual Arts

The dance, drama, music, and visual arts curriculum philosophy and learning outcomes are represented by the image of a butterfly. The butterfly serves as a metaphor and as a graphic organizer for transformative learning in the arts. Students perceive the world and make and communicate meaning through active dance, drama, music, and visual arts learning experiences that integrate the four butterfly wings or essential learning areas of the four arts. Students learn and use different arts tools and language to make and create dance, drama, music, and/or visual arts works. Students explore the roles, purposes, and meanings of the arts in their own lives, in the lives of their families, and in their communities. As students wander through the arts education landscapes, they question, analyze, reflect on, and construct personal meaning about the arts, while building personal identity and relationships with others.

Kindergarten Curriculum at a Glance: Arts Education: Dance, Drama, Music, and Visual Arts

Rationale

The arts are a vital part of every student's education. They engage children's bodies, minds, and spirits, and provide new ways of seeing the world. Through arts education, students develop multiple, unique, and powerful ways of interpreting, knowing, representing, and communicating understandings about themselves and the world around them. Students have opportunities to be creative, explore ideas and feelings, use their imagination, think critically, and work with others. Arts education helps students become creative adults and citizens who will enrich their own lives and the lives of their future communities.

(continued)

Kindergarten Curriculum at a Glance: Arts Education: Dance, Drama, Music, and Visual Arts

Organization of Kindergarten Arts Education

The dance, drama, music, and visual arts curriculum frameworks are organized into **four essential learning areas**:

- **Language, Tools, and Performance Skills:** Children develop understanding of and facility with arts concepts, skills, techniques, elements, and forms of dance, drama, music, and/or visual arts.
- **Creative Expression:** Students collaboratively and individually generate, develop, and communicate ideas in creating and performing art works for a variety of purposes and audiences.
- **Understanding the Arts in Context:** Children connect to contexts of time, place, and community, and develop understanding of how the arts reflect and influence culture and identity.
- **Valuing:** Students analyze, reflect on, and construct meaning in response to their own and others' art works.

Each essential learning area in each of the arts is further delineated by a set of three or four general learning outcomes, which are further described by sets of specific learning outcomes.

Learning Environment

Arts education learning environments provide opportunities for young learners to work and play individually and together to pursue inquiry in the arts. Learning in the arts is enhanced by rich environments that include space to dance, make music, and participate in drama and visual arts learning experiences, and by instruments and arts resources, such as small percussion instruments, props for dramatic play and dance, and a variety of visual arts media. (See Chapter 6.)

Curriculum Resources

Manitoba Education. *Kindergarten to Grade 8 Dance: Manitoba Curriculum Framework of Outcomes*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/arts/dance/framework_k-8.html> (19 Jan. 2015).

————. *Kindergarten to Grade 8 Drama: Manitoba Curriculum Framework of Outcomes*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/arts/drama/framework_k-8.html> (19 Jan. 2015).

————. *Kindergarten to Grade 8 Music: Manitoba Curriculum Framework of Outcomes*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/arts/music/framework_k-8.html> (19 Jan. 2015).

————. *Kindergarten to Grade 8 Visual Arts: Manitoba Curriculum Framework of Outcomes*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/arts/visual/framework_k-8.html> (19 Jan. 2015).

Implementation Resources: Pictures of Practice

Manitoba Education and Advanced Learning. *Dance Pictures of Practice (Kindergarten to Grade 8)*. <www.edu.gov.mb.ca/k12/cur/arts/dance/practice.html> (19 Jan. 2015).

————. *Drama Pictures of Practice (Kindergarten to Grade 8)*. <www.edu.gov.mb.ca/k12/cur/arts/drama/practice.html> (19 Jan. 2015).

————. *Music Pictures of Practice (Kindergarten to Grade 8)*. <www.edu.gov.mb.ca/k12/cur/arts/music/practice.html> (19 Jan. 2015).

————. *Visual Arts Pictures of Practice (Kindergarten to Grade 8)*. <www.edu.gov.mb.ca/k12/cur/arts/visual/practice.html> (19 Jan. 2015).

Making Meaning

Kindergarten children experiment with ways to express themselves creatively and begin to develop skills and knowledge in one or more of the arts. They explore the questions "who," "where," "when," and "why" related to the arts. They think about the importance and meaning of the arts in their own lives, and in the lives of their families and communities. Children learn to think critically and talk about their experiences with learning in the arts. Every Kindergarten student deserves to know the joys of dance, drama, music, and visual arts and to learn in and through active, authentic arts experiences. Dance, drama, music, and visual arts are important literacies that give Early Years children a wealth of rich, imaginative tools, resources, and languages for perceiving, for making meaning, and for communicating understandings about the world.

Important conditions for scaffolding children's learning in the arts include the following (Wright 28–30):

- personally relevant experiences
- quality tools and resources
- sufficient time and opportunities to explore arts learning and media
- deep learning through purposeful exploration of ideas and feelings
- challenging resources to extend arts learning
- opportunities for critical reflection, discussion, analysis, and feedback
- inclusion and facilitation of children's perspectives
- exploration of elements unique to each arts discipline and ways to make meaningful cross-disciplinary connections
- opportunities to explore aesthetic qualities in children's worlds
- awareness of the importance of artistic and aesthetic values for all individuals, societies, and cultures
- opportunities for children to discuss the intent as well as the product of the artistic learning

The Learning Landscapes Questions through the Arts

Ways to perceive the world.

How do I perceive the world in multiple ways . . .

The arts "help us learn to notice the world" (Eisner 10) from different perspectives. For example, buildings and people in the children's community are perceived differently through visual, aural, kinesthetic, and dramatic ways.

Through the arts, children may observe their world closely, using a variety of different lenses and from unique points of view.

I wonder . . .

Media and opportunities to inspire children to wonder.

The arts provide rich media and opportunities for children's "wandering and wondering" (Short, Harste, and Burke). Provocations or invitations for learning through dance, drama, music, and visual arts foster wondering, excite imagination, stimulate curiosity, and engage the senses, feelings, body, mind, and spirit.

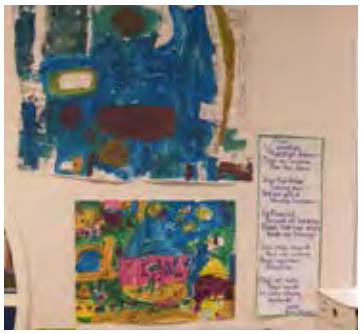
Arts invitations that open new learning spaces and inspire children to wonder might include

- photographs, art, and artifacts that students can sketch, collage, paint, or sculpt
- artifacts, clothing, and picture books to inspire dramatic play and language
- pictures (e.g., of rain, abstract art, sequence of seeds growing to flowers) for children to "dance the picture," with or without props, or "play the picture," with small percussion instruments

Ways of making meaning.

How do I make meaning . . .

The multiple modes of the arts provide a wealth of symbols and symbol systems for making and encoding meaning of the world. When children participate "*as artists*, in creative making . . . by thinking analytically about artistic processes and products" (Wright 148), the arts become "significant modes for knowing and understanding" (128).



Ways to communicate thinking, understanding, and learning.

How do I communicate my thinking, understanding, learning . . .

The embodied ways of knowing in the arts involve cognitive, physical, emotional, intuitive, and spiritual knowing. Because these modes can be expressed in non-verbal as well as verbal ways, communicating through the arts transcends cultural and language differences, so they are especially powerful for your English as an additional language learners. For example, a child may not yet have the verbal or written skills to communicate understandings about the world, but may be able to paint, dance, act, or sing that learning. The arts allow children to make their thinking and feeling visible to others.

Building identity and relationships with others, with community, and with Earth.

How do I build my identity and my relationships with others, with my community, with Earth . . .

The arts provide powerful affordances to perceive the world in multiple ways, to celebrate diversity and uniqueness, and to discover common values and needs. Through authentic learning in the arts, students "explore ideas and feelings, and develop understandings about their emerging personal, cultural, and social identities" (Manitoba Education, *Kindergarten to Grade 8 Visual Arts* 6).

Learning outcomes in Manitoba's arts curricula focus on connecting the arts to different contexts of time, place, social groups, and cultures through individual exploration and group collaboration and negotiation. The arts give children a realm of rich, imaginative tools and resources for exploring issues and events in their communities and world.

Ways of using artistic tools and language to communicate understandings about the world.

What do I do with what I know . . .

Using artistic tools and language, students can generate ideas, problem solve, create, and communicate understandings about art and the world. The ways of knowing in the arts can generate transformative learning.

The arts have the potential to "teach new ways of seeing the world and thinking creatively, ultimately toward the goal of preparing a generation of innovative thinkers to address the most pressing problems of our times" (Sheridan-Rabideau 54).

Vignette: Our Class Explores Rockets

One Kindergarten teacher shares the story behind a rocket inquiry that flowed over several days from the socio-dramatic play centre to the puppet stage, to the art centre, and to the interactive whiteboard, engaging children in much building, measuring, problem solving, collaborating, building three-dimensional representations, using new space language, and more.

The intentional teacher understands the importance of socio-dramatic play to children's learning across all developmental domains and in response to many curricular learning outcomes. Comfortable with emergent curriculum, the teacher uses a flexible approach to respond to the children's passionate interest in space and Canadian astronaut Chris Hadfield, and so supports the children at the dramatic play centre.

The Kindergarten teacher describes what unfolded in her classroom as follows:

> Anyone learning about space knows you need a rocket in which to explore the solar system. We got the supplies ready, made a plan on the whiteboard, and then set to work as a class. First, we made a big point at the top. Then we put blasters on the side. Mr. J. held up the box so we could see what it would be like. But, no matter how much tape, glue, and staples we used, our rocket would not stand up on its own. All was not lost; we came up with a much better idea in the end. We used our puppet stand as a way to hold up the pointy part and then turned the blasters into four little rockets. Let the space travel begin!

How many children can fit into one rocket?

Children begin by creating their own personal rockets.

Connections to the Arts Education Curricula

This vignette incorporates a number of specific learning outcomes from the arts education curricula.

Drama

In this Kindergarten class, children

- generate and use ideas from a variety of sources such as the Internet and books and create drama through what they learn about Canada's famous astronaut Chris Hadfield, rockets, the solar system, and space travel (K–1 DR–C1.1)*
- create and use play areas for specific play experiences, and use a variety of objects imaginatively for props (K–1 DR–C1.4)
- make decisions, with teacher guidance, about the selection and use of ideas and dramatic elements and forms in their own dramatic play (K–2 DR–C2.1)
- collaborate with others in developing dramatic play experiences (K–4 DR–C2.6)
- contribute ideas that help a dramatic story unfold in play (K–1 DR–C1.3)

(continued)

* The specific learning outcomes and codes are identified in the arts education curriculum framework documents.

Connections to the Arts Education Curricula

Visual Arts

Kindergarten children

- engage thoughtfully with artworks from various times, places, and peoples (K–8 A–U1.1)
- use art media, tools, and processes to explore and demonstrate awareness of the elements of art: line, colour, texture, shape, form, and space (K–2 A–L1.1)
- observe, talk about, and use various art media to depict visual details in a wide range of subjects found in images and in life (K–2 A–L3.1)
- draw and paint, demonstrating understanding that lines can depict the edges of observed, recalled, or imagined shapes and forms (K–1 A–L3.2)
- create images and objects in response to ideas derived from a variety of stimuli (K–1 A–C1.1)
- experiment constructively with grade-appropriate art elements and media to create a variety of images and objects (K–1 A–C1.2)
- describe, with teacher guidance, own and others' artworks in terms of subject matter and art elements and media (K–2 A–V2.1)
- prepare own artworks to share with others in a variety of contexts (K–1 A–C3.1)

As part of their space exploration, Kindergarten students enjoyed making different kinds of space art. Their first project was inspired by famous artist Vincent Van Gogh's painting *Starry Night*.

According to their teacher, the Kindergarten students' "next big art project" was inspired by some very silly books about *Aliens in Underpants* by Claire Freedman. In these books, aliens fly down to Earth to steal any kind of underpants they can get their hands on. They even save the world by making a huge pair of underpants to deflect an asteroid coming towards Earth. "The students love these books and loved drawing and painting their very own alien wearing underpants!"

Children use paintbrushes to create their detail.

A child's representation of a starry night.

Children's aliens are on display. Individualized art rather than cookie-cutter products help celebrate children's unique ideas.

Children enjoy the silliness of their drawings about aliens.

Cross-Curricular Connections

In addition to addressing arts education learning outcomes throughout this inquiry, children engage in cross-curricular learning through the integration of

- English language arts (speaking, listening, viewing, representing, reading, and writing through the four ELA practices when using language for sense making, as a system, for exploration and design, and for power and agency)
- mathematics (measuring, predicting, and 3-D objects)
- science (paper and colour explorations)

English Language Arts Landscapes

As children explore the English language arts (ELA) landscapes, they learn language, learn about language, and learn through language in a variety of situations, for a variety of purposes, and with a variety of texts. Through listening, speaking, reading, writing, viewing, and representing, learners develop competency in making meaning of and creating texts to meet personal and academic goals.

Kindergarten Curriculum at a Glance: English Language Arts

Rationale

Language is central to all learning. Through ELA, learners become flexible, reflective, and critical thinkers who are able to interact with complex ideas about themselves, the world, and society. ELA encourages creativity and imagination and provides learning that transfers through and between the other disciplines (or curricular areas).

Through ELA, students

- use the practices of ELA within their learning landscapes as full and active participants
- develop flexible and versatile ways of thinking and using language to meet personal, social, and academic needs
- build a sense of self, identity, community, and the world
- sustain a lifelong sense of curiosity, a passion for learning, and an appreciation of the power and beauty of language and literature

Organization of Kindergarten ELA

The ELA curriculum profiles four big ideas in the form of *practices*—the ways we use language in ELA. When learning in rich, meaningful contexts and play, students need opportunities to use language

- for sense making
- as a system
- for exploration and design
- for power and agency

For more information about these practices, see the group Reflecting on and Moving Forward with a New English Language Arts Curriculum at the following website:

Manitoba Education and Advanced Learning. *Manitoba Professional Learning Environment (Maple)*. <www.mapleforem.ca/> (20 Nov. 2015).

Learning Environment

An ELA-rich learning environment provides opportunities for

- imaginative play and exploration (individual, small group, large group)
- interaction with a range of rich texts (e.g., books, visuals, fiction, non-fiction, poetry, artifacts, digital text, environmental print, music, art)
- imagining and creating texts and ideas using space, materials, resources, tools, and provocations

(continued)

Kindergarten Curriculum at a Glance: English Language Arts

Curriculum Resources

Manitoba Education and Advanced Learning. *Manitoba Professional Learning Environment (Maple)*. <www.mapleforem.ca/> (20 Nov. 2015).

The ELA curriculum is currently being renewed. You can access information and processes for reflecting on the new curriculum in the group Reflecting on and Moving Forward with a New English Language Arts Curriculum on the *Maple* website.

Manitoba Education, Citizenship and Youth. *Developmental Reading Continuum (Phase 1)*. <www.edu.gov.mb.ca/k12/cur/ela/drc/index.html> (11 Feb. 2015).

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————. *Me Read? No Way! A Practical Guide to Improving Boys' Literacy Skills*. Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2004. Available online at <www.edu.gov.mb.ca/k12/docs/support/me_read/index.html> (11 Feb. 2015).

ELA through Play

Children encounter a range of rich texts.

A child composes and creates.

English language arts learning includes play-based exploration in meaningful contexts. Inquiry encourages meaningful learning because it engages children's inherent curiosity and provides students with opportunities to wonder, build knowledge, and develop inquiring habits of mind leading to a deep understanding of the world and human experience. Questions are formulated by teachers and students to motivate and guide inquiries into topics, problems, and issues related to the curriculum. Inquiry learning is not a step-by-step process, but rather a recurring process, with parts of the process being revisited and rethought as a result of children's discoveries, insights, and co-construction of new knowledge. Exploration, inquiry, and play provide students with opportunities to engage in the four ELA practices in meaningful contexts.

The Learning Landscapes Questions through ELA

The Kindergarten ELA curriculum helps students to understand and appreciate language, and to use it confidently and competently in a variety of situations. Purposeful play and inquiry provide opportunities for students to use all four ELA practices in authentic ways. In Chapter 7, in a vignette about Ms. Smith's class of builders (see Vignette: Builders in the Learning Landscape), Nick and the other children use language and specific vocabulary to understand what happened to the blocks. They also ask important questions. Ms. Smith

After reading and enjoying the traditional story *Stone Soup*, children express the desire to make their own stone soup. Together with their teacher, they develop a shopping list, a meaningful reason to write. Later, they shop for the ingredients at a neighbourhood store and then make the soup as a caring classroom community. Mathematics can be integrated into the learning experience. Children can sort the vegetables into groups and determine the number of items in a group. They can also follow a simple recipe, using numeracy skills related to counting and measuring. They can make comparison statements about the quantities of vegetables such as, "There are 2 more carrots than onions." The children then co-create a documentation panel that captures their learning.

prompts the children with open-ended questions so students can become competent, confident users of the English language while becoming knowledgeable about themselves, their community, and the world through deep and meaningful inquiry. Through ELA, Kindergarten students build positive identities as language and literacy learners within caring communities.

How do I perceive the world in multiple ways . . .

Children actively seek to understand the world around them and to learn about life and language. The ways they explore, show curiosity, engage in inquiry, and play with language are multiple. Children also share unique and multiple perspectives and perceive the world from different lenses. In the vignette, students were able to notice different things, share and test different ideas, and ask different questions. Children were able to approach their block inquiry from different lenses.

I wonder . . .

Through imagining and reimagining, re-enacting stories and ideas in multiple ways, and wondering about big questions, students engage in important and meaningful inquiry. Through critical literacies, Kindergarten children can interpret, question, and evaluate ideas and information to further explore compelling questions about self, others, and the world. Nick asks what happened to cause his blocks to fall, a compelling question for him as he evaluates his ideas. Kindergarten students can pose and generate questions and problems, explore ideas from different perspectives, and use diverse approaches to test discoveries, solve problems, make decisions, and resolve conflicts.

How do I make meaning . . .

Kindergarten students make meaning of texts, ideas, self, and the world through multiple modes. Through viewing, representing, listening, speaking, reading, writing, and combinations of these modes, students navigate and share their thinking and understanding. In the vignette, while using blocks of different shapes, children come together to explore language and ideas related to building. In Kindergarten, students make meaning before, during, and after viewing, listening to, and reading a variety of oral, literary, and media texts. Nick describes his idea before he places the block (artifact, text, or medium), with a prediction about what will happen. Students are able to choose the before, during, and after strategies to build understanding (comprehension). The open-ended question Ms. Smith poses helps the class understand what happened. When children are making meaning, they generate and evaluate their own ideas and language as text to make sense of the experience, just as Nick does

shortly after his building falls. The children listen, read, and view analytically and critically, make and explain decisions, pose questions and seek clarification, and consider various points of view or alternative perspectives.

How do I communicate my thinking, understanding, learning . . .

Communicating thinking, understanding, and learning goes hand in hand with making meaning. Children can make meaning through communication. For example, children may re-enact a story read aloud through play-acting or drama. This supports and deepens their meaning making of ideas while also providing an opportunity to communicate and reimagine these ideas in different ways. As Nick is wondering about the demise of his building, he is communicating the problem, while the other children look on with interest. Before Nick begins, he states his purpose of building a structure and predicts it will be tall. After the crash, he rethinks and revises his ideas with the help of his classmates. Children actively engage in acquiring language and in constructing their own understandings, just as Matthew does, when he makes a connection to his previous building.

How do I build my identity and my relationships with others, with my community, with Earth . . .

Kindergarten teachers and children build deeper understandings of their communities, languages, and identities as they explore questions, ideas, and concerns about themselves and the world. In doing so, they deepen their respect and value for the diversity in classrooms, schools, and other communities, and the multiple perspectives, lenses, and ways of knowing represented in these communities. Meaningful learning contexts provide the space for students to use language and other symbol systems that reflect their identities, and that enable them to advocate for themselves, their communities, and the environment.

What do I do with what I know . . .

Through inquiry, play, and other ways of experiencing, students communicate and transform learning in diverse and innovative ways. They imagine and reimagine ideas, experiences, stories, and even themselves and their communities. They work together to problem solve. They further investigate and question and make decisions about how they position ideas, information, stories, and themselves, and how they use language to do this. They invent, take risks, and reflect to create possibilities.

A successful approach to Manitoba's Kindergarten ELA curriculum is embedded in research-based practice that responds to what we know about educational effectiveness and what is developmentally appropriate for young learners.

Mathematics Landscapes

As children explore the mathematics landscapes, they communicate, make connections, and reason in order to solve problems. Through counting, sorting, matching, comparing, measuring, creating patterns, and building shapes, Kindergarten students make sense of mathematical concepts. Kindergarten teachers provide young learners with math manipulatives and experiences for active engagement so that they can explore concepts related to number, patterns, shapes, measurement, and geometry. Mathematics learning is embedded in mathematics lessons, play, discussions, reading, storytelling, and daily routines to foster the development of mathematical thinking and understanding.

Kindergarten Curriculum at a Glance: Mathematics

Rationale

By creating an atmosphere that encourages exploration and by using engaging learning activities, teachers develop and nourish children's curiosity about mathematics. This curiosity fosters appreciation for, and value of, mathematics. Kindergarten students explore mathematical concepts such as counting, patterning, sorting, and measuring, and build understanding through hands-on, interactive, and meaningful learning experiences. Positive early experiences in mathematics build confidence and help prepare children to communicate, reason, and use mathematics to think critically about the world.

Organization of Kindergarten Mathematics

The Kindergarten mathematics curriculum has three strands:

- **Number**
- **Patterns and Relations**
- **Shape and Space**

The following seven **mathematical processes** are important components that students must encounter in mathematics to help achieve the goals and encourage lifelong learning in mathematics. Students must

- **communicate** what they are thinking and learning
- **connect** mathematics to everyday situations and other subjects
- **estimate** and **use mental mathematics strategies**
- learn through **problem solving**
- **reason** and explain their thinking
- **use technology** to enhance their learning
- **use visualization** to describe their thinking

These seven interrelated mathematical processes are intended to permeate teaching and learning of the learning outcomes identified in the Kindergarten Mathematics curriculum.

Learning Environment

The mathematics-rich learning environment provides opportunities for

- using mathematics language to encourage math talk that focuses on student understanding
- doing, talking about, and reflecting on mathematics
- promoting and facilitating problem solving as a way of teaching and learning
- developing understanding by using manipulatives and providing links among concrete, pictorial, and symbolic representations of mathematics

(continued)

Kindergarten Curriculum at a Glance: Mathematics

- focusing on important mathematical concepts or big ideas during mathematics instruction
- establishing mathematics routines that promote understanding (journalling, number of the day, math word walls [pictures], problem solving, and counting centres)
- developing an understanding of the relationships and flexibility of numbers
- promoting enthusiasm for mathematics that develops students' confidence, imagination, flexibility, inventiveness, and persistence in their ability to understand and use mathematics

Curriculum Resources

Manitoba Education. *Kindergarten to Grade 8 Mathematics: Manitoba Curriculum Framework of Outcomes, 2013.* Winnipeg, MB: Manitoba Education, 2013. Available online at <www.edu.gov.mb.ca/k12/cur/math/framework_k-8/> (22 Oct. 2014).

Manitoba Education and Advanced Learning. "Blackline Masters." *Mathematics*. <www.edu.gov.mb.ca/k12/cur/math/k_support/blms/index.html> (11 Feb. 2015).

————. "Curriculum Outcomes." *Mathematics*. <www.edu.gov.mb.ca/k12/cur/math/outcomes/index.html> (11 Feb. 2015).

————. "Early Years Mathematics Activities and Games." *Mathematics*. <www.edu.gov.mb.ca/k12/cur/math/games/> (11 Feb. 2015).

————. "General and Specific Learning Outcomes with Achievement Indicators by Grade: Kindergarten." *Mathematics*. <www.edu.gov.mb.ca/k12/cur/math/framework_k-8/kindergarten.pdf> (11 Feb. 2015).

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Manitoba Education, Citizenship and Youth. *Helping Your Child Learn Math: A Parent's Guide.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2004. Available online at <www.edu.gov.mb.ca/k12/docs/parents/learn/math.html> (11 Feb. 2015).

Mathematics through Play

Young children are naturally curious and develop a variety of mathematical ideas even before they enter Kindergarten. Children make sense of their environment through observations and interactions at home, in their early learning and child care programs, in preschools, and in the community. Mathematics learning is embedded in everyday activities, such as playing, reading, storytelling, and helping around the home and at preschool centres. Learning experiences can contribute to the development of number and spatial sense in children.

Curiosity about mathematics is fostered when children are engaged in learning activities such as comparing quantities, searching for patterns, sorting objects, ordering objects, creating designs, building with blocks, and asking questions and talking about these activities (see Vignette: Builders in the Learning Landscape, Chapter 7). Young children need to explore mathematical concepts such as counting, patterning, sorting, and measuring through hands-on and interactive approaches in order to enhance their knowledge about mathematics and make it meaningful for them. Positive early experiences in mathematics are as critical to child development as early literacy experiences are.

Kindergarten students observe numbers and patterns in their lives. They use objects and pictures to show and compare quantities of things up to 10 and they learn to count to 30. They also learn about patterns and three-dimensional objects.

Young learners make meaning through discussions that provide essential links among concrete, pictorial, and symbolic representations of mathematics:

- **Concrete:** Representing a situation or solving a problem using actual objects.
- **Pictorial:** Representing a situation or solving a problem using drawings or representations of actual objects.
- **Symbolic:** Representing a situation or solving a problem using an abstract representation. Most symbolic representations involve using numbers.

Concrete, pictorial, and symbolic representations of 7.

Kindergarten children come to school possessing mathematical knowledge. Through your observations of children, you assess their prior knowledge. Then you build upon their strengths and facilitate their learning in an engaging and authentic manner by making connections and integrating ideas and subject areas.

The learning environment should value and respect children's own experiences and ways of thinking, so that learners are comfortable taking intellectual risks, asking questions, and predicting what might happen next. Young children need to explore problem-solving situations in order to construct their own personal strategies and become mathematically literate. Learners begin to realize that it is acceptable to solve problems in different ways and that solutions may vary.

"Meaningful math activities in the context of play can foster crucial aspects of children's development. . . . Learning to count by rote teaches children number words and their order, but it does not teach them number sense, any more than singing the letters L-M-N-O-P in the alphabet song teaches phonemic awareness. . . . Teaching math effectively requires a focus on children's understanding of the core foundational concepts in mathematics" (Stipek, Schoenfeld, and Gomby).

In addition to setting up a mathematics discovery centre (see Chapter 6), you can incorporate mathematical learning into many other learning centres. For example, using your sensory table, encourage children to learn important concepts about volume as they explore the physical attributes of water, ice, and snow, or even mud. Offer children different types and sizes of containers that will hold water and various small utensils, such as measuring cups and spoons, to support their explorations about conservation. Ask children to predict how many cups of water or how many spoons full of snow it would take to fill a certain container, and then do the "experiment" to find out. Help children to chart their findings.

At your science discovery centre, set up a classification activity for children to pick up items with magnets. Some will stick and some will not. Children can chart their discoveries. One teacher observed that "exploring magnetism was a great topic for discovery bins" (for a discussion of discovery bins, see Chapter 6). Later in the week,

(L) Students use magnetism discovery trays. (R) Measuring children's height early in the school year and then at regular intervals throughout the year offers children many opportunities to construct their own mathematical meaning.

she added small plastic bottles and containers with iron filings inside. Some students decided to sort the materials based on whether or not they were magnetic. This hands-on learning addressed curricular connections to mathematics, science, and language arts.

In the gymnasium or on an obstacle course you set up, children can learn about weight and balance as they try to walk across a balance beam. You can naturally insert positional words into the conversation as children climb over things, or crawl under or through, or walk on top of, beside, or in front of friends or obstacles.

Consider placing your class calendar in your dramatic play centre, as many children will be familiar with family calendars hanging in their kitchens at home. Since time is often an abstract concept for Kindergarten children who are still pre-operational thinkers, you can encourage them to circle and label important milestones, such as the hundredth day of school, or mark class inquiries, such as when children began building their stadium and the date it was finally finished. The calendar can help children count days consecutively, practise one-to-one correspondence, name the days of the week, and experience the passing of days, weeks, and months in authentic ways. Discovering the calendar through play may be far more meaningful than the rote calendar activity that so often starts off a Kindergarten day. (For more discussion on this topic, see Chapter 5.)

Teachers create learning environments that provide opportunities to explore children's interest through weaving together curricular expectations and helping children to see the connections between the various concepts they are learning about. To build and explore three-dimensional objects, the class can take photographs of their community, and then discuss how the different structures can be recreated to make a representation of the community. Students can use modelling clay, blocks, or recyclables to create their representations.

(L) Children pace out the size of the dinosaur. (R) Children use pylons to mark the heads and tails of these enormous animals from long ago.

Children can also use their own bodies to help represent. In one classroom where children were challenged to imagine just how big dinosaurs were, the teacher recognized a great opportunity to develop numeracy skills, while incorporating bodily-kinesthetic learning styles. Together, the class paced out each dinosaur—they all held hands in a line

and counted each step out loud. They used pylons to show the head and the tail of each dinosaur and taped the applicable signs to them, allowing them to make comparisons about the lengths of the dinosaurs.

(Above) Simple games that use dice build children's mathematics skills in enjoyable, low-stress ways.

(Top R) Children's names are so meaningful to them that counting and graphing their letters becomes a simple but powerful learning experience. Children begin to read the names of their friends.

(Bottom R) The children in this classroom created visual representations of their homes, focusing on how many windows they had, and then compared and contrasted using a class graph. Learning outcomes from arts education, science, and social studies were also met.

Science Landscapes

Science education is intended to support children in becoming scientifically literate individuals who can explore and inquire about the world around them (their science landscapes), interpret information, solve problems, make informed decisions, accommodate change, and create new knowledge. Early Years science experiences encourage children to develop a critical sense of wonder and curiosity about the natural world, to develop scientific ways of thinking as they interact with the endlessly interesting things around them, and to learn to express their questions, observations, and thinking.

Kindergarten Curriculum at a Glance: Science

Rationale

Children are born scientists. They are full of wonder, are naturally inquisitive, and make sense of their experiences by observing and interacting with the people and things around them. Learning through science engages children by appealing to their curiosity, their creativity, and their desire to discover and understand the natural world and their relationship with it.

Children enter Kindergarten with surprisingly sophisticated ways of thinking. Their understandings of the world develop and grow as they interact with the endlessly interesting things around them: things that fall, roll, or bounce; things that wriggle and slither; things that chirp, bark, or roar. Even if their understandings are incorrect (e.g., heavy things fall faster than lighter things) young children are naturally persistent as they watch and listen, and try to figure out how something works. These behaviours are the basic practices of science: observing, predicting, analyzing, interpreting, developing models, asking questions, and explaining. When children are encouraged to express what they think and observe, and when their ideas are taken seriously, they are well on their way to more sophisticated understandings.

Organization of Kindergarten Science

The Kindergarten science curriculum is organized into **clusters** of learning. The following three thematic clusters or interest areas provide ideas and contexts for student play and guide broader learning contexts to allow deeper exploration of bigger ideas:

- **Cluster 1: Trees**
- **Cluster 2: Colour**
- **Cluster 3: Paper**

In the Manitoba science curriculum, **Cluster 0: Overall Skills and Attitudes** describes the practices of science, as used in inquiry and the design process. Cluster 0 practices can be integrated throughout the thematic clusters and often purposefully developed through many play-based learning experiences.

Learning Environment

Kindergarten spaces and curricula are generally designed so that children are exposed to a wide variety of stimulating ideas, artifacts, and materials. Environments that enrich science learning will surround children with materials, objects, and living organisms that stimulate thinking and exploration. Such spaces provide many opportunities for hands-on learning and for peer-to-peer communication as children talk about their observations, present their theories and ideas to one another, and justify their conclusions. Children need adequate time in these rich environments to play with their peers and to engage freely and actively with ideas and resources. Science requires thinking, in addition to acting or manipulating. Thus, the "hands-on/minds-on" approach to science should be purposeful and thoughtful in its design.

Curriculum Resources

Manitoba Education and Advanced Learning. "Kindergarten Science At a Glance—Thematic Clusters." *Science*. <www.edu.gov.mb.ca/k12/cur/science/outcomes/k-4/topic_charts.pdf> (11 Feb. 2015).

————. *Science and Safety: A Kindergarten to Grade 12 Resource Manual for Teachers, Schools, and School Divisions*. Winnipeg, MB: Manitoba Education and Advanced Learning, 2014. Available online at <www.edu.gov.mb.ca/k12/docs/support/scisafe/index.html> (11 Feb. 2015).

Manitoba Education and Training. *Kindergarten to Grade 4 Science: A Foundation for Implementation*. Winnipeg, MB: Manitoba Education and Training, 1999. Available online at <www.edu.gov.mb.ca/k12/cur/science/found/kto4/index.html> (11 Feb. 2015).

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Science through Play

A boy is intrigued by sand running through hour glasses, added into the classroom by an intentional teacher to enrich science learning and children's developing concepts of time.

A boy uses his hands to paint with red and yellow, predicting and describing changes that occur when primary colours are mixed and demonstrating understanding of the elements and principles of artistic design, using the word *colour* appropriately (Visual Arts, K–2A–L1.1, K–2A–L1.2; Science, K–2–05).

Remember the "teachable moment" and be ready to respond. Much significant learning takes place when the child's interest takes priority. Children can use science notebooks or clipboards and charts to record their observations. They can record questions they want to learn more about (e.g., What do baby frogs look like?). Avoid structured worksheets; instead, provide children with writing experiences that are developmentally appropriate and meet the needs of children with a variety of abilities and skills. Reviewing and reflecting on their science notebooks allows children to recall and celebrate what they have done and learned.

Although most children need little or no encouragement to play and explore, they may need prompting to explain their thinking and observations, and this is where your role as a teacher becomes critical. To create environments that enrich science learning, you surround children with materials that stimulate thinking and exploration, find ways to ask well-timed probing questions that prompt children to ask further questions, and promote a sense of safety and confidence-building in posing or answering questions, so that children can look for evidence, conduct tests, and construct and share their ideas. Once children feel confident about their own abilities to think and question, their play moves into the realm of enriching, but still fun, scientific inquiry. Guided learning—using the basic practices of science in a developmentally appropriate manner—encourages children to think scientifically and provides them with skills to build new knowledge and develop a better understanding of their world.

The design process skills help children understand how science and engineering work together to find solutions to practical problems, and assist children in recognizing the important role of creativity and collaboration in science. In Kindergarten, the design process is limited to a few important situations, namely, how to

- recognize a problem that could be solved
- brainstorm with classmates about possible solutions
- evaluate a solution in a group environment and then put it into practice with teacher and peer guidance

A boy investigates the properties of a giant hosta leaf, using Unifix cubes to communicate its size.

A budding scientist enjoys microscope activities. Note that in many Hutterian colony schools, a multi-age classroom is the norm, making it more likely that a Kindergarten child might encounter a microscope.

The problem to be solved could be "How will we design a way to feed our fish while we are away from school on a long weekend?" or "We want to catch rainwater from the roof of the school for our tomato plants. How could we do that?" The design process skills serve to make science learning more immediate, more practical, more meaningful, and more relevant to a young child.

Two important aspects of scientific inquiry are the skills of communication and collaboration. Children need time (and may need assistance) as they work with their peers to analyze and interpret information. They also need opportunities to explain their thinking and to express their ideas and discuss them with others. They may use a variety of media to do this, including drawing, writing, making graphs (e.g., "pictures of my numbers"), making pictorial representations of findings or of data, or simply talking. Taking time to discuss the children's ideas, either one-on-one or in a group setting, will help to uncover their thought processes and understandings.

In the following vignette from a Kindergarten teacher, you will see how a spontaneous experience provides an opportunity to

- find out what children already know
- find out what children want to know
- provide children with space and time to reflect and come up with theories
- provide children with space and time to test their theories
- extend and integrate curriculum outcomes in science and other subject areas

Vignette: Scientific Inquiry: Responding to Children's Interests through Teachable Moments

On a morning in June, some of the children came to Kindergarten talking excitedly about the "millions of caterpillars" they had seen on a tree in the schoolyard when they had been playing outside before school started.

As I listened to their excitement, I wondered about what they were thinking, and so I asked them questions and made comments such as "It sounds like you noticed . . ." and "What are you thinking about?" Finally, I asked, "What do you want to do?" And they answered, "Go outside and watch them some more." While listening to their answers, I wondered about how children could further explore their questions and decided that we really should go outside to observe the caterpillars in more detail as the children had requested. However, before we did this, I needed to do some planning. I wondered whether there was a way to go out in smaller groups so the children would have more time to explore and discover. And if not, what plans would I need to make so the entire class could go out together but still have a meaningful experience observing the caterpillars? I also thought about timing. We needed to visit the caterpillars as soon as possible, as there was a risk that the caterpillars would be gone later in the day; at the same time, we needed to go out when we would not be interrupted, so we could make the most of this experience. After some thought and discussion with my colleagues, I determined we should go out before first recess. I also thought about the Kindergarten curricula and what learning outcomes we might meet through this discovery.

Before we left our classroom, I reminded the children to take out some clipboards and paper to support their writing. I also made sure I was prepared. I brought the camera to take photographs of what the children noticed, as well as a clipboard with paper for me because I knew the children would have a lot of questions that I would need to record to capture their wonder during this time.

While outdoors, the children asked initial questions about the caterpillars:

- What are they?
- What are they doing?
- Where do they live?
- What do they eat?
- Do they have babies?

The children also talked about what kind of caterpillars they might be, wondered why there were so many of them on one tree, checked nearby trees to see whether they had caterpillars too, and then wondered why just this one tree had all the caterpillars.

After this experience, I knew the children needed time to review what we had noticed and wondered about while we watched the caterpillars. I uploaded the photos for children to review during group time. This was an opportunity to draw the children back to what we saw and to revisit the questions they posed. During this time, I again stopped and listened to what the children were saying as they reviewed the photos and their own notes. This gave children opportunities to think about what they already knew and what they wanted to find out, share their theories, and scaffold on their knowledge. My role was to help the children organize their thoughts and record them for future reflection, rather than lead them toward particular answers. In this way, children could make connections between what they already knew and what they could discover.

One child made a worried comment, expressing his hope that "the big kids would leave the caterpillars alone at recess." A discussion began about this concern. We considered whether this was a big concern and what we could do about it to help. Ideas included going to speak to the other classes, making an announcement, or making signs. The children who were interested began to make signs to place around the tree, similar to the signs they often make to protect and save the

Reflection

After our group time, I knew the children needed more time to discover. I asked myself:

- When can I plan time for the children to continue to observe and question?
- How can I help them answer their questions?
- How can I help children fully develop their theories and continue this experience for them?
- How can I help them solidify their ideas?
- How can I continue to allow children to lead their inquiry, not only in science, but across the curriculum?
- How can I guide the learning to address curriculum outcomes?
- What did the children notice?
- Have the children seen anything like this before?
- What do they already know about this?
- How can I invite the children to continue to question and provoke their interest?
- Now what do I do about all this?

block structures they are working on at playtime. Children collected paper, craft sticks, clipboards, tape, glue, and other materials to construct their signs as they figured out how to make signs that would stand on their own or in the ground and not be blown away or need to be affixed to the tree. Children had a meaningful reason to write. Our class went back outside to place the signs around the base of the tree, and to take some more pictures of the caterpillars.

For this group of children at this time, the real interest was about the safety of the caterpillars. At a later time, the interests of these same children may grow into different areas. For another group of children, safety of the caterpillars may not be an interest they need to investigate. Instead, they may be interested in the movement of the caterpillars and need experiences to express themselves through music and movement; they may be interested in the look of the caterpillars and need to make visual representations of the caterpillars in different mediums; or they may be curious about caterpillar growth and need to make hands-on connections between concepts such as size and length and their observations of the caterpillars' growth over a month.

The beauty of responding to children's interests is that the process of the inquiry allows children to construct their knowledge and develop important skills. Each child will have a different journey within the learning landscapes, yet they all will have more meaningful opportunities to learn. Providing time for children to investigate fully allows teachers to focus on the entire Kindergarten curriculum through children's own interests.

(Top L) The provocation: a tree covered in caterpillars. (R) Children begin to create signs to protect "their" caterpillars from the bigger students.

(Bottom L) One sign, complete: Don't touch, "jus" look, Ben. (R) The children encircle the tree with their warning signs.

Social Studies Landscapes

Social studies helps young learners to acquire an understanding of who they are in relation to the landscapes in which they live. Students explore how they view the world and build upon who they are in relation to others in their world. They become aware of how people live, play, and work together in order to meet their basic needs. As they explore their social and natural environments, young learners become aware that they live in a country called Canada, and begin to see themselves as part of a larger world.

Kindergarten Curriculum at a Glance: Social Studies: Being Together

Rationale

Social studies helps children to understand the importance of our Earth, to care about the well-being of living things and the environment, and to recognize that their personal decisions can contribute to the well-being of the environment. Social studies learning experiences focus on personal relationships and the world around us, providing children with the knowledge, skills, and values of active, responsible citizenship. Social studies helps students learn to care about all the people around them—the people with whom they share this planet, near and far away. As Kindergarten children work and play together, they learn that their behaviour affects others, and they can and need to make their voices heard. They learn they can stand up for justice, for what is right and fair, and to take action when needed.

Organization of Kindergarten Social Studies

The Kindergarten social studies curriculum is organized into **clusters**:

- **Cluster 1: Me:** Students are given the opportunity to think about their identity and communicate who they are in creative ways: What makes them unique? What are their abilities and interests? What groups or places are important to them?
- **Cluster 2: The People around Me:** Students build upon their identity as they explore the people around them who care for them and influence their lives. Through interactive play, they learn essential skills in communication, cooperation, and problem solving. These skills are important as they build their relationships and will help them through their formative years as they play and work together with others.
- **Cluster 3: The World around Me:** Students look at the world around them, exploring their local neighbourhood and learning that they live in a country called Canada. They learn that all people have the same basic needs, but may have different ways of meeting those needs. By studying and designing creative models of their neighbourhood, they make meaning of the variety of ways (i.e., maps and globes) they can portray natural and human places in our world.

Learning Environment

Social studies classrooms provide children with the knowledge, skills, and values of global citizenship. Students are given opportunities to investigate and inquire about their role in local communities and their responsibilities as global citizens. Through collaboration and cooperative learning activities, they learn skills necessary to work and play together. These interactive learning strategies help Kindergarten children to develop good personal relations, and show them how they can contribute to the greater good of the classroom, school, and local/global community.

(continued)

Kindergarten Curriculum at a Glance: Social Studies: Being Together

Curriculum Resources

Manitoba Education and Advanced Learning. "Websites to Support the Curriculum." *Social Studies*. <www.edu.gov.mb.ca/k12/cur/socstud/supporting/index.html#k> (11 Feb. 2015).

Manitoba Education, Citizenship and Youth. *Kindergarten Social Studies: Being Together: A Foundation for Implementation*. Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2005. Available online at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/index.html> (11 Feb. 2015).

Social Studies through Play

Play-based learning provides children with a way to wonder about and explore their world, and to discover what it means to be a citizen—of their classroom, school, and community, and the Earth. Social studies builds the knowledge, skills, and values we all need as we live and work at *being together* in this democratic country we call Canada.

Social studies provides skills that help children build their identity and relationships with others and in the world. These skills include

- communication
  - listen actively to others
  - use language that is respectful of others
- cooperation and collaboration with others
  - consider others' needs when working and playing together
  - interact fairly and respectfully with others
  - accept differences
  - take responsibility
  - identify consequences of their actions
  - resolve conflicts peacefully
- decision making that reflects the need to care for the Earth and to protect our collective future

Every child comes to the classroom with a unique and personal set of identities, including gender, language, beliefs, values, family and life experiences, interests, and physical attributes and abilities. When social studies is incorporated in play-based learning, children have opportunities to perceive the world in multiple ways, to learn that although everyone is unique, we all have the same basic needs—an idea that is foundational to living in a diverse and democratic society that relies on ideas of equality, fairness, and respect for others.

"... the curricula of social studies use big ideas to connect with children and deepen their understanding of their relevant social world" (Mindes 7).

What types of responsibilities do children carry out? How do children fit in their social world? In one Manitoba Kindergarten classroom, the teacher invited families to photograph their own children engaged in helpful and responsible behaviours at home and to write a short description on a recipe card of how their child helps. (The classroom digital camera was sent home with children whose families did not have a camera.)

When the photos and stories came back to school, the class discussed them and posted them in the classroom under the title Helping Hands. The stories and photos showed that children watered plants, folded clothes, put away groceries, helped with cooking and baking, and carried out many other important jobs at home. This learning experience helped children to master an important social studies learning outcome: acting responsibly allows us to live together peacefully. In addition, children learned about how things are done in families other than their own, which supported children's developing abilities to consider the perspectives of others and to be more accepting of differences. Importantly, this learning experience also supported family engagement in children's learning by involving families directly in their children's Kindergarten experiences.

Photos and short write-ups of how children help at home are displayed in the classroom. Children see themselves reflected in their classroom; families are engaged in their children's learning.

Children also learn about the ways they can help out and hold responsibility in Kindergarten. Taking care of the classroom can be considered as part of the Kindergarten social studies curriculum. This time of day builds community by designating group responsibilities for maintaining the classroom's physical environment. Children may also share responsibility for other classroom jobs, such as watering plants, feeding pets, being the line leader, and many other small developmentally appropriate tasks that build on children's desire to be helpful.

"Social studies at the center of early childhood curricula offers the hope that the focus of education will be on the development of effective, efficient, ethical children who will approach their world non-simplistically and thoughtfully. With the help of good teachers, children will not only absorb the content that focuses on citizenship education in all its permutations, but also learn how to learn and how to consider multiple perspectives" (Mindes 7).

This display shows a way to track children's roles and responsibilities in the class.

Vignette: Learning the Difference between Needs and Wants

"Teaching strategies in preschool and primary social studies include individual investigations in the library, in the field, and on the Internet; interviews; small-group collaboration; and large-group discussions" (Mindes 6).

In one Kindergarten class, the teacher initiated a playful learning experience that followed an earlier circle time discussion about *basic needs* and how those might be different from *wants*. During free choice time, children could choose to count, sort, and classify the items found in a bin—a selection of items representing both needs and wants. The small-group format supported children's collaboration as they examined each item, often stopping to play with materials found in the collection. There was lots of good discussion among the children as they put forward their reasons for calling each item a need or a want, listened actively to others, interacted fairly and respectfully, and accepted differences.

In the end, the children decided that *wants* included money, candy, and toys. *Needs* included a blanket, representing warmth and shelter, the teddy bear, representing comfort and love, and the water bottle, which was moved to the *needs* side after a persuasive argument by one child.

Through this social studies learning experience, mathematics learning outcomes were also addressed.

(L) A boy stops to play with Lego, one of his *wants*, while another retrieves a ball that has bounced away. (R) Three boys examine items they will sort into needs and wants.

(L) Some of the wants included money, candy, and toys. (R) Four boys are proud of the work they have done together.

Physical Education/Health Education Landscapes

In the combined physical education/health education (PE/HE) curriculum, Kindergarten students develop the knowledge, skills, and attitudes to lead physically active and healthy lifestyles. They participate in physical activities for fun and for fitness. They learn ways to stay healthy, to look after themselves, and to recognize unsafe situations. They also learn about following safety rules and getting along with others.

Kindergarten Curriculum at a Glance: Physical Education/Health Education

Rationale

The Kindergarten to Grade 12 PE/HE curriculum supports the health and well-being of every school-age child and the prevention of significant behaviours that contribute to today's major health risks for children and youth (see Chapter 10).

Organization of Kindergarten PE/HE

The combined PE/HE curriculum provides a connected approach to learning about the mind and body that promotes healthy and active living. The Kindergarten to Grade 12 PE/HE curriculum is designed to support an integrated and holistic approach to using highly active and interactive learning experiences to promote lifelong physical activity and well-being.

During Kindergarten, the following general learning outcomes (GLOs) are met:

- **Movement and Fitness Management (GLOs 1 and 2):** playing cooperatively; refining basic skills, such as running, hopping, and bouncing balls; and participating in physical activities
- **Safety (GLO 3):** recognizing and following safety rules for physical activities, footwear, and playgrounds; identifying safety symbols and rules for traffic, school buses, poisons and chemicals, stoves, sharp utensils, bathtubs, and waterfronts; and knowing where to go and whom to ask for help in the community
- **Personal and Social Management (GLO 4):** identifying own actions, feelings, and emotions related to getting along with others; knowing how to listen carefully, avoid danger, and find help; and recognizing what is safe/healthy and what is unsafe/unhealthy
- **Healthy Lifestyle Practices (GLO 5):** knowing daily habits for healthy living, such as daily physical activity, teeth brushing and washing, healthy eating, and getting enough sleep; identifying helpful and harmful substances; naming the parts of the body; and understanding the right to privacy (e.g., washrooms)

(continued)

Kindergarten Curriculum at a Glance: Physical Education/Health Education

Learning Environment

The PE/HE learning environment must be safe, inclusive, and healthy, with a focus on active learning. The physical education setting emphasizes fair play, enjoyment, socialization, and active living through a wide variety and balance of physical activities that focus on successful participation and involvement, including skill and fitness development. The health education setting promotes learning about healthy relationships and lifestyles through activities that are relevant, current, meaningful, and balanced, and offer a variety of choices in learning experiences. The emphasis is on active interaction with subject matter and other learners.

Curriculum Resources

Manitoba Education and Advanced Learning. "Kindergarten to Grade 4 Curriculum Documents." *Physical Education/Health Education*. <www.edu.gov.mb.ca/k12/cur/physhlth/kto4.html> (11 Feb. 2015).

Manitoba Education, Training and Youth. "Blackline Masters." *Kindergarten to Grade 4 Physical Education/Health Education: A Foundation for Implementation*. <www.edu.gov.mb.ca/k12/cur/physhlth/foundation/blm.html#kindergarten> (11 Feb. 2015).

————. *Kindergarten—Physical Education/Health Education—Specific Learning Outcomes*. Winnipeg, MB: Manitoba Education, Training and Youth, 2001. Poster available online at <www.edu.gov.mb.ca/k12/cur/physhlth/foundation/poster_k.pdf> (11 Feb. 2015).

————. *Kindergarten to Grade 4 Physical Education/Health Education: A Foundation for Implementation*. Winnipeg, MB: Manitoba Education, Training and Youth, 2001. Available online at <www.edu.gov.mb.ca/k12/cur/physhlth/foundation/index.html> (11 Feb. 2015).

Grocery Store: Curricular Connections

As children in this class looked at grocery store flyers, which were added into their dramatic play centre, they began to play shopping at the store. They became interested in creating grocery lists (meaningful reasons to write) and to talk about healthy food choices. This allowed their teacher to address the physical education/health education learning outcome, Recognize the food guide rainbow and a variety of foods in *Canada's Food Guide to Healthy Eating* (K.5.K.C.1a). They showed their understanding of the food groups as they cut out pictures and sorted them by the categories of Meat and Eggs, Fruit and Vegetables, Breads and Cereals, Milk and Cheese, and Sometimes Food (treats).

A child creates her shopping list.

The class sorts food choices into groups.

Cross-curricular connections were also fostered. Children discussed the colours of the rainbow (science learning outcomes) and patterns and relations (mathematics—sorting and organizing). As they talked about food and cultures, and the geographic regions where some of the foods were grown, social studies learning outcomes were met. Children also demonstrated their ability to manage their ideas and information and to represent their ideas (English language arts).

PE/HE through Play

PE/HE provides daily opportunities for young children to learn about and experience the benefits of physically active and healthy lifestyles. Through making meaning, exploring perceptions, building relationships, and communicating with others, children understand what it means to be active and make safe, healthy choices.

Personal and social management skills help children develop healthy lifestyle practices and relationships, and contribute to the development of positive self-image and the acceptance of self and others. Learning activities focus on five personal and social-management skills:

Daily outdoor play is beneficial to children year-round.

Children learn beginner's yoga and are mastering the tree pose *(vrksasana)*, trying it first for five and then for ten slow, steady, and deep breaths once they have found their balance.

- goal-setting/planning skills
- decision-making/problem-solving skills
- interpersonal skills
- conflict-resolution skills
- stress-management skills

Integrating PE/HE into the core Kindergarten curricula is common in many Manitoba classrooms. For example, when Kindergarten children play the game of Partner Tag as part of the PE/HE curriculum, mathematics and social studies learning outcomes are addressed along with children's physical and cognitive developmental domains. As discussed in Chapter 5, many teachers use the outdoors as an extension to their indoor classroom and some implement a regular outdoor exploration block as part of their schedule. There is great opportunity for young learners to achieve an increased level of physical activity when teachers ensure that physical activity is included as a component of the day (Thirkill et al.).

In some schools, Kindergarten teachers teach key PE/HE concepts in their own classrooms or outdoors, while in other schools, children are taught by the school's PE/HE teacher. One teacher responsible for meeting her students' PE/HE learning outcomes shares that her little red wagon is always filled with items to enrich outdoor physical play activities, such as many different sizes of balls. In the fall, it often includes rakes, a bird-watching reference book, a camera, magnifying glasses, racquets, and balls. In the spring, it holds bits of wood for floating in puddles, sand shovels and buckets, watering cans, streamers, stilts, skipping ropes, large paintbrushes (for painting with water on pavement or sidewalks), and binoculars.

The Landscapes of English as an Additional Language

Increasingly in Manitoba, children enter Kindergarten with a home language other than English, or a variation of English that is different from that used in school learning. A strength-based approach sees these children as emerging bilinguals and values their first language proficiency (possibly including some literacy skills), while providing time and opportunity for them to develop the English language proficiency they will need for school and community. Kindergarten is a time of great transition for children, and the transition is greater for children who are new to the language and culture. As a curriculum area, English as an additional language (EAL) encompasses language and cultural learning, as well as providing children with strategies to become resourceful, confident learners of their new language.

Kindergarten Curriculum at a Glance: English as an Additional Language

Rationale

Children who speak English as their first language generally enter Kindergarten knowing a vocabulary of several thousand words and the basic structures of English. The social and experiential learning in Kindergarten expands that base and begins to help children develop "school" language, while laying the foundations of the curricular areas. Many of the basic Kindergarten learning principles (e.g., experiential, language-rich, constructivist, social) naturally build language, but EAL learners will need conscious and specific attention to ensure they catch up with their peers. While young children will usually pick up everyday communication skills in one or two years, they usually need five to eight years to gain fully the language and skills that are required for success in the higher grades. EAL learning is critical for students to feel included in the life of the classroom and to access the provincial curriculum. The EAL curriculum framework assists teachers in planning the language and cultural support that is needed.

Organization of Kindergarten EAL

The Kindergarten to Grade 12 EAL curriculum provides an EAL Acquisition Continuum of Stages to help teachers and parents assess and describe the child's current level of EAL proficiency and plan for learning. The Early Years continuum has three stages, from beginning to grade-level proficiency. The individual differences of children have a great impact on how they engage and progress in English language learning.

Four interconnected **domains** of EAL learning are necessary for students to become proficient users of English for social interaction and academic learning:

- **Domain 1: Linguistic Competence**
- **Domain 2: Contextual Applications**
- **Domain 3: Intercultural Competency and Global Citizenship**
- **Domain 4: Strategic Competence**

Each of these domains contains clusters of more specific learning strands (e.g., sound and symbol system [pronunciation]), for which learning goals are described for each of the three stages. The EAL curriculum framework is complementary to the other curricular areas as children learn to understand and use language successfully to engage in learning experiences.

(continued)

Kindergarten Curriculum at a Glance: English as an Additional Language

Learning Environment

Although children may be very quiet in class for the first few months of Kindergarten, they are listening to and absorbing the sound and meaning of the language. Children are encouraged, but never forced, to contribute—they generally understand more than they can produce. A new language is best learned in a highly interactive environment, where exchanges have clear meaning and purpose, situated in observable contexts and tasks. Kindergarten provides the ideal environment for learning a new language—through movement, visuals, real objects, music, arts, inquiry, role play, and so on. Shared experiences, accompanied and followed by teacher-guided conversation and language development, will enrich all children, but are especially effective for EAL learning. Building a rich oral vocabulary will facilitate literacy development. Home languages are also valued. Scaffolding is a key principle for language development (see Chapter 4 for more about scaffolding).

Curriculum Resources

This EAL snapshot is meant to supplement the information found in the following curriculum framework, which provides an in-depth discussion of programming for EAL students and should be used as a foundational resource to guide practice when working with EAL learners.

Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

Pathways through EAL Landscapes

The pathways through which learners acquire EAL are influenced by their own unique learning landscapes. Children's internal characteristics, combined with their social environment, family support, and other environmental factors, influence how they learn a second language. The dynamic process of developing language and making meaning evolves through the interaction of multiple factors, including how children perceive their world culturally and linguistically.

Experts in the learning of additional languages highlight key considerations about the ways children acquire language:

- Second language learning requires explicit instruction.
- Conditions required to support each child vary.
- Second language learning involves acquiring skills in both social and academic language.

Pairing EAL students with English-speaking partners is a strategy that allows children to learn classroom routines and expectations while building important social connections.

Assessing Language Proficiency Levels

EAL students are learning within classroom environments where English is generally the sole language of instruction. Without providing appropriate supports, EAL students may experience marginalization, and their literacy development may be delayed. Knowledge of ways to adapt instructional practices and interaction patterns to correspond with the students' levels of English language proficiency will assist you to provide appropriate programming for your EAL students. Designing and differentiating instruction to facilitate learning within your Kindergarten classroom requires you to focus on the individual student's language acquisition needs and explicitly provide opportunity for English language development.

Vignette: Retelling a Story in Different Languages

Our culturally diverse school has many newcomer and EAL learners, whose families speak many languages at home. Children enjoyed reading a very simple picture book and were especially proud of their successes in reading it on their own, since it contains only five words in various combinations. One child wondered about retelling the story in his own language, leading to the class decision to write and illustrate their own version in English, Tagalog, and Punjabi. Parent volunteers were recruited to help with the writing work and later to sit on the teacher's chair and read the book in its new incarnation to the children. This learning experience supported learning outcomes in English language arts, social studies, and arts education. Key EAL learning outcomes included children learning to understand and use language successfully to engage in a highly interactive shared learning experience. Creating books in various languages was also a wonderful family engagement strategy (about which you can read more in Chapter 10).

Children create their own book illustrations using the "still life" technique.

The original picture book (R) and the children's version are displayed.

Reflection: Play throughout the Kindergarten Curriculum

In your reflection about play throughout the Kindergarten curriculum, consider questions such as these:

- How can you increase the potency of the learning experiences you offer to children by connecting them meaningfully to other curricular areas and learning goals?
- What concepts can you use to pull together various curricular areas?
- How do you include writing opportunities, language development, and other important goals?
- What steps in the learning process will help move children from where they are to the new target (in their own zone of proximal development)?
- Which developmental domains are being addressed as you introduce learning experiences?
- How can you weave the curriculum into children's interests through play to create relevant/meaningful/authentic experiences?
- What special considerations do you make to ensure the needs of EAL students are addressed?

Summary

In this chapter, you reviewed snapshots of the Kindergarten curriculum, thinking about how to help children meet important learning outcomes through an inquiry-based, integrated, and playful approach to learning. Chapter 9 continues with snapshots that will help you to consider the integratable elements of learning.

Continue Your Learning

For a description of Manitoba's various types of curriculum documents, see:

Manitoba Education and Advanced Learning. "Types of Curriculum Documents." *Curriculum*. <www.edu.gov.mb.ca/k12/cur/types.html> (12 Nov. 2014).

To access detailed general and specific learning outcomes for each subject area, see:

Manitoba Education and Advanced Learning. *Curriculum/Subjects*. <www.edu.gov.mb.ca/k12/cur/index.html> (12 Nov. 2014).

Chapter 9:

The Integratable Elements

Chapter 9: The Integratable Elements

Guiding Principle: The Learning Program

The Kindergarten learning program provides many opportunities for child-initiated play supported by engaged and intentional teachers, in balance with more focused experiential inquiry guided by teachers.

Guiding Principle: Inclusion and Diversity

Kindergarten experiences reflect the diversity of children, families, and colleagues, and actively promote inclusion.

Kindergarten Integratables at a Glance

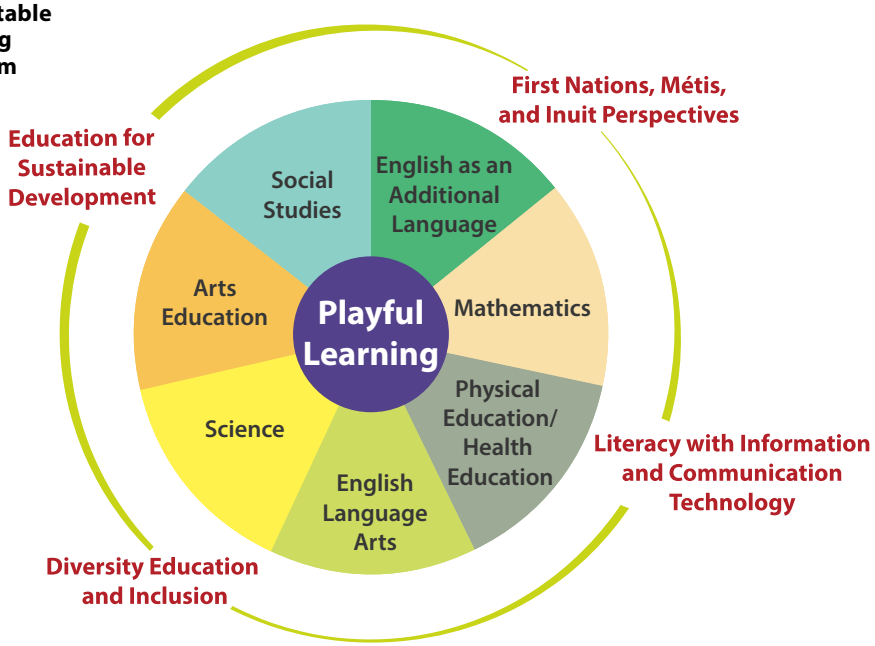
Chapter 8 focuses on how intentional teachers approach Manitoba's Kindergarten curriculum by considering the learning landscapes through which children journey. Scaffolding upon those ideas, Chapter 9 provides opportunities to think about the many ways you might embed content that further enriches children's play-based learning, while meeting departmental priorities.

The integratable elements of learning in Manitoba are overarching and integral to your Kindergarten learning program. The integratable elements of learning across the curriculum (see Figure 9.1) are:

- education for sustainable development
- First Nations, Métis, and Inuit perspectives
- literacy with information and communication technology
- diversity education and inclusion

These elements are essential to authentic, critical, and creative learning within the learning landscapes (Western and Northern Canadian Protocol for Collaboration in Education).

Figure 9.1: Integratable Elements of Learning across the Curriculum



What does this integration look like in action? The following vignette describes how a teacher of a combined junior Kindergarten/Kindergarten classroom and a Grade 1 teacher, from two different schools in two different communities, worked together to address the integratable elements of learning and the curriculum in a meaningful and authentic way, while ensuring deep learning by young children.

Vignette: Little Hands, BIG World

Project Outcomes

Children will

- cooperate and collaborate with others to identify and explore important issues
- develop and implement action plans that address issues they have identified as important
- use information and communication technology (ICT) responsibly to build knowledge, achieve curricular outcomes, and think critically/creatively in authentic situations
- become informed, responsible decision makers, playing active roles as global citizens and contributing to others' well-being

Learning Experiences

- Using a project-based learning approach, the children explored a variety of sustainability topics, as determined by their own interests and by identified needs in the community.

- Children began by exploring how we help and hurt the environment. Using the interactive whiteboard, we examined a variety of pictures showing environmentally helpful and hurtful practices. The children used digital cameras, their own digital drawings, and Microsoft AutoCollage to create posters promoting litter reduction, tree planting, and bike riding and/or walking. These posters were shared digitally through social media.
- Children measured the amount of garbage they were generating each day at lunchtime. We tweeted this data and challenged partner classrooms to a litterless lunch competition. On designated days, the children tried to bring as many reusable containers as possible, counting, graphing, and tweeting the results.
- Reusable bag use was also explored. Children visited a local grocery store and used tablets to track how many reusable bags and plastic bags were used in an hour. They were shocked to discover that the majority of people in our communities still used plastic bags. Children used Skype to share information and brainstorm ideas for a solution with friends in another school. They decided to create "reminder tags" for people to hang in their cars or on the doors of their homes to remind them to bring their reusable bags to the store. Our Grade 1 partner class created adhesive reminder tags with quick response (QR) codes so people could scan them for more information about the project. Children from both classrooms collaborated to create criteria for designing and producing their reusable bag reminder tags.

Student-Generated Criteria for Reusable Bag Reminder Tags

- Children chose to address the issues of animal rescue. A worker from a local animal rescue shelter visited our partner class, and we used Skype to ask questions about her work. Both classrooms were inspired to collect old towels and blankets to be reused for animal bedding. We also contacted Brandon Humane Society and our local veterinarian. We learned about why the animals don't have homes, and the children asked how they could help. They decided to bake treats for the animals at the humane society. This led to a lot of shared reading (as we explored recipes) and interactive writing (as we created a shopping list). Students raised money for the project by creating a movie and presenting it to the Parent Advisory Council and the Student Council. After a field trip to the grocery store to purchase ingredients, we started baking and freezing treats every week at our cooking centre (many numeracy outcomes were met as we measured and counted). The project was completed when we

took a field trip to Brandon Humane Society, meeting the pets and presenting the treats in person.

- Throughout these inquiries and learning experiences, children were actively involved in making substantive decisions about their learning and about solving real-world problems in their classrooms, homes, and local/global communities.
- Children perceived the activities as fun and were highly engaged throughout—they saw their work as important and purposeful as they baked dog/cat treats, created reusable bag reminder tags, and so on.
- Dramatic play centres, such as a vet clinic and grocery store, provided children with additional opportunities to explore the topics.
- ICT tools such as free applications that support video conferencing and social media were essential to exploring these topics, communicating with our partner classroom in another community and other stakeholders, such as the Brandon Humane Society, and sharing our learning with a larger audience. Ethical and responsible use of technology was interwoven throughout the learning experiences. The *Developmental Continuum for Literacy with ICT* ("The Literacy with ICT Continuum," Manitoba Education and Advanced Learning) provided a guideline for developmentally appropriate infusion of ICT.

What Teachers Learned

- Collaboration among teachers, students, and schools was rewarding for everyone involved. Collaboration provided an authentic audience, enhanced student and teacher engagement, and multiplied the resources available to all involved.
- Project-based learning empowered learners and gave an urgency and a purpose for developing and applying early literacy and numeracy skills.
- Our youngest learners functioned as change agents and had a powerful impact on their families and communities. Little hands can make a difference in our big world.

The Landscape of Education for Sustainable Development

Sustainability is about preparing our students, ensuring they are environmentally responsible, globally aware, economically astute, and socially responsible citizens capable of coping with the emerging challenges and opportunities we are facing now and will face in the future.

Education for sustainable development (ESD) learning outcomes are embedded in the Manitoba curriculum. ESD infuses sustainability awareness into all aspects of schooling, including outdoor learning spaces. It is reflected in the curriculum across all subject areas and is learner-centred and action-oriented. By placing learning in a local context in our communities and the outdoors, Kindergarten children can develop a sense of responsibility to the natural world and the people around them.

Integration of Education for Sustainable Development

Rationale

One of the overarching goals of Manitoba Education and Advanced Learning is "to ensure education in Manitoba supports students experiencing and learning about what it means to live in a sustainable manner" (*Mandate, Mission, Vision, Overarching Goals and Priority Action Areas*). In supporting children "learning to live sustainably," it is helpful to think of the three pillars of ESD: the environment, the economy, and human health and well-being. There is a commitment to care for

- **oneself**—our health and well-being
- **each other and all life forms**—across cultures, generations, and locations
- **the biosphere**—locally and globally

Organization of ESD in Kindergarten

In Kindergarten, the overarching ESD themes are that students consider their own needs, the needs of others, and the needs of future generations. Students' learning experiences focus on

- respecting and caring for other people in the local community and other places in the world
- caring for all living things in our environment
- recognizing that human survival is dependent on the environment
- respecting the natural environment while participating in physical activity
- exploring personal wellness and healthy lifestyle practices, recognizing emotions, and connecting health and happiness

ESD Learning Environment

Through an interdisciplinary, play-based approach, children in Kindergarten begin their exploration of rights and responsibilities by looking at personal responsibility, cooperation, their own needs and those of others (considering the ability of the natural world to provide), and living peacefully.

Students explore personal and social management and healthy lifestyle practices, and they learn to recognize their range of emotions and connect health and happiness.

Students learn to appreciate and respect the natural environment while being physically active outdoors. They begin to recognize the food guide rainbow, featured in *Eating Well with Canada's Food Guide* (Health Canada), and that food helps them to grow and feel good. They recognize safety indicators in the environment and understand who safety helpers are. They learn to make decisions that reflect care, concern, and responsibility for the environment. Students explore scientific inquiry and are encouraged to ask questions and develop curiosity about living things and events in their immediate environment, develop a curiosity and wonder about the natural environment, and examine how it influences their daily life. They are also encouraged to take action to live sustainably.

(L) Children's art affirms that their helping hands can change the world. (Centre) A compost pail reminds children about how snack and cooking scraps go in, and rich soil comes out. (R) A child writes about how she will help the Earth.

An ESD Project Emerges

In one classroom, a huge interest in frogs was generated in response to one boy bringing in a frog as his contribution for the letter *F*. Soon, an inquiry unfolded that had Kindergarten children mobilizing to save the endangered Oregon spotted frog habitat. As a way to raise funds for their cause, the children held an iced tea and cookie sale and earned over $120 to help "the Oregon spotted frog and sick kids." The money was divided between attempts to rescue the frogs and a donation to the Children's Hospital Research Foundation.

(L) Children at their tea and cookie stand. (R) The children's promotional poster.

The Influence of the Outdoors

A number of studies (Taylor and Kuo; Maller et al.; Berman, Jonides, and Kaplan) have shown the value of learning in the outdoors. Nature-based education, land-based education, schoolyard gardening/naturalization, outdoor learning centres, forest schools, and nature Kindergartens have all become important educational trends.

Some schools are working hard to naturalize their playgrounds with species indigenous to Manitoba and to create outdoor classrooms where children's learning can occur in the fresh air. FortWhyte Alive is a source for information about how to move such a project forward in your own school and community. Manitoba Education and Advanced Learning has partnered with FortWhyte Alive* to assist educators to "naturescape" (connecting greening to the curriculum) and in outdoor education (assisting teachers to take curricular learning outdoors).

"As a child, one has that magical capacity to move among the many eras of the earth; to see the land as an animal does; to experience the sky from the perspective of a flower or a bee; to feel the earth quiver and breathe beneath us; to know a hundred different smells of mud and listen unselfconsciously to the soughing of the trees" (Andrews 17).

* For additional information, see:
FortWhyte Alive. "Naturescape for Educators." *For Educators.* <https://www.fortwhyte.org/foreducators/teacherpd/naturescape-for-educators/> (21 Nov. 2014).
————. "Outdoor Educator." *For Educators.* <https://www.fortwhyte.org/foreducators/teacherpd/outdoor-educator/> (21 Nov. 2014).

(L) A bird feeder can be observed through a Kindergarten classroom window.

(R) Tomatoes grow right outside the Kindergarten classroom door.

If you spend significant time outdoors with your Kindergarten children, plan ahead to ensure children and adults have the gear (equipment and clothing) needed to be comfortable in outdoor learning experiences. Help families get on board with the idea that their children will play outdoors every day, even on cold days. At your Kindergarten open house or first day in the classroom, invite parents to leave a complete set of extra clothes for their child at school in case of a puddle mishap. You may strategically choose to keep one additional gender-neutral set on hand to be really safe.

Children will need the following items at various points of the year (and you will need most of them as well). Many of the items can be stored in children's cubbies.

Children's Gear for Outdoor Learning

To Keep at School	Seasonal
■ wool socks (three pairs during winter) ■ mittens (three pairs during winter) ■ a toque (during winter) ■ a sun hat (during spring and summer) ■ a small backpack ■ a small clipboard and pencils stored in a resealable plastic bag ■ extra change of clothes (underwear, pants, shirt, socks)	■ rubber boots of good quality ■ runners (no open-toed shoes) ■ a small water bottle ■ sunscreen ■ insect repellent ■ splash pants for spring or fall rainy days or for muddy days in the forest ■ a raincoat ■ fleece pullovers, hooded jackets, or vests ■ a snowsuit ■ a long underwear set (long-sleeved shirt and pants—not cotton)

In addition to the children's gear, your class kit for outdoor learning should include tools such as

- magnifying glasses, binoculars, and kaleidoscopes
- tape measures and yard/metre sticks
- a bird feeder and seed
- nature journals and pencils

- an all-weather thermometer (e.g., to measure snow temperature)
- a sturdy rope
- a tarp and clips (to create shade or shelter)
- a digital camera

These tools will encourage children's inquiry and problem solving and support curricular outcomes.

The Landscape of First Nations, Métis, and Inuit Perspectives

The integration of First Nations, Métis, and Inuit perspectives is a priority for education in Manitoba:

> Aboriginal perspectives are based on the distinct world view of the Aboriginal cultures. This world view has humans living in a universe made by the Creator and needing to live in harmony with nature, one another, and with oneself. Each Aboriginal culture expresses this same world view in a different way, with different practices, stories, and cultural products. (Western Canadian Protocol for Collaboration in Basic Education 132, cited in Manitoba Education and Youth, *Integrating Aboriginal Perspectives into Curricula* 1)

> Schools have the responsibility to ensure that Aboriginal perspectives are fairly and accurately conveyed to all students. The inclusion of Aboriginal perspectives into curricula will benefit not only Aboriginal peoples, but non-Aboriginal peoples as well. All students are denied a quality education if they are not exposed to the contributions made by all people in the development of the country in which they live. (Manitoba Education and Youth, *Integrating Aboriginal Perspectives into Curricula* 1)

First Nations, Métis, and Inuit perspectives are infused into Manitoba curricula, resources, and classroom principles and practices.

Integration of First Nations, Métis, and Inuit Perspectives

Rationale

All students benefit from the meaningful inclusion of First Nations, Métis, and Inuit perspectives in the curricula, resources, and pedagogy:

- First Nations, Métis, and Inuit children develop a sense of identity and pride in their cultures.
- Non-Indigenous children develop understanding of and respect for First Nations, Métis, and Inuit cultures.
- Increased sense of identity, pride, and sense of belonging contribute to enhanced academic outcomes for First Nations, Métis, and Inuit students, including retention and graduation.
- Knowledge and understanding of Indigenous history and cultures by all students is integral to understanding the Canadian experience and context, allowing Indigenous and non-Indigenous Canadians to work together to create an equitable society based on respect and understanding.

(continued)

Integration of First Nations, Métis, and Inuit Perspectives

Organization of First Nations, Métis, and Inuit Perspectives in Kindergarten

The inclusion of First Nations, Métis, and Inuit perspectives across the curriculum provides rich opportunities to

- teach holistically, including intellectual, physical, emotional, and spiritual teaching and learning opportunities
- create processes of celebrating strengths, resilience, giftedness, sense of selfhood, feelings of competence, community, belonging, and relationships
- discover, nurture, and build on children's gifts
- have high expectations of students
- connect school learning to home and community

First Nations, Métis, and Inuit Perspectives-Rich Learning Environment

The First Nations, Métis, and Inuit perspectives-rich Kindergarten classroom

- reflects the diversity of the classroom, including First Nations, Métis, and Inuit cultures
- nurtures First Nations, Métis, and Inuit values
- is a safe haven for learning
- connects curriculum content to culture and identity
- fosters collaboration and cooperation
- is a site for culturally based teaching and learning, including storytelling as a regular pedagogical practice, and incorporates experiential and outdoor learning experiences
- fosters acceptance and respect
- celebrates First Nations, Métis, and Inuit cultures, contributions, and achievements
- provides opportunities for collaboration and cooperation
- uses student data to identify and address barriers to student learning in policy and practice

(L) Ojibwe and Cree cultures are celebrated through culturally affirming photos and artifacts.
(R) A dreamcatcher welcomes children to this classroom.

Viewing the Kindergarten Curriculum from First Nations, Métis, and Inuit Perspectives

How would your integrated approach to the Kindergarten curriculum look through an Indigenous lens? Think about the following goals, and consider which of these educational practices you can weave into your approach.

- **Build personal identity and relationships:**

  The Kindergarten experience should facilitate relationship building between the child and peers, between the child and the teacher, and with the natural environment (Toulouse, *Achieving Aboriginal Student Success*).

  - Understand that Indigenous connections to the land are not general but relate to specific sites. Indigenous knowledge is based upon an intimate, protracted relationship between a community and its environment.
  - Recognize the student's knowledge, experience, and world view.
  - Respect and emphasize the strengths of the child and build upon those strengths to structure learning and construct knowledge.
  - Meaningfully include family and community in the learning process.
  - Engage students in pairs, small groups, and larger groups.

- **Cultivate wonder and making meaning of the world:**

  Learning should encompass all aspects of a child's being: physical, intellectual, emotional, and spiritual.

  - Infuse foundational First Nations, Métis, and Inuit ways of knowing.
  - Celebrate First Nations, Métis, and Inuit cultures.
  - Use authentic and meaningful First Nations, Métis, and Inuit resources.
  - Employ teaching and assessment practices that reflect Indigenous ways of knowing.
  - Include traditional/holistic and Western approaches to teaching.
  - Include experiential learning among your teaching strategies.

- **Communicate understanding:**

  - Employ teaching and assessment practices that reflect Indigenous ways of knowing.
  - Use Indigenous teaching practices such as storytelling and circle learning.
  - Through professional learning and experience,
    - build cultural proficiency
    - examine your own practices and principles and build knowledge of anti-racist education

- **Perceive the world:**
  - Employ culturally affirming, authentic resources.
  - Invite Elders to share traditional knowledge. (See Appendix S: Elders in the Classroom for protocols about inviting Elders to your school.)
  - Include visual and kinesthetic teaching/learning strategies.
  - Create culturally affirming, holistic learning environments.
  - Build knowledge of Indigenous histories, cultures, ways of knowing, and pedagogy through professional learning.
  - Afford students opportunities to reflect on questions.
  - Give students multiple ways to respond to questions and complete learning activities.

As part of their inquiry into Métis culture during Festival du Voyageur, children in a French immersion school examine Métis sashes. They later practise weaving for themselves, discovering more about patterns (mathematics) and colours (science) during this learning experience.

The following table describes some of the unique and holistic ways Kindergarten-age children can be supported to understand First Nations, Métis, and Inuit (FNMI) peoples.

Early Learning / Kindergarten: Holistic Engagement with FNMI Nations

From the age of four to five years, children's emotional and moral development is rapidly growing and greatly impressionable. At this stage they are forming images of self, beginning to express ideas, asking questions and learning to engage in discussion.* This is a time for growth, compassion and understanding FNMI peoples through a holistic perspective.

Geographical Area/s OR Terms OR Nations to Highlight	Suggested Contributions to Highlight	General Subject and Potential Strategies
Always start with the local FNMI Nations and their self-identification terms. Turtle Island First Nations Métis Inuit Respect Mother Earth	Canoes Snowshoes Popcorn Pumpkins Fishhooks Chocolate Maple Sugar Umbrellas Mirrors Shovels Jackstraws Cat's Cradle	**LITERACY:** Interactive storytelling sessions on FNMI legends. **NUMERACY:** Make popcorn strings, count and share new in-class learning on FNMI Nations. **SCIENCE:** Create paintings of Mother Earth and relay the FNMI teaching. **SOCIAL STUDIES:** Read Aloud on maple sugar and maple syrup as an FNMI gift. **THE ARTS:** Decorate pumpkins and share the origin of this FNMI innovation.

* This child development information from: Calgary and Area Child and Family Services. "Developmental Stages for Children/Youth." <www.calgaryandareacfsa.gov.ab.ca/home/index.cfm>.

Source of table: Toulouse, Pamela Rose. "A Truthful Narrative: Bringing First Nations, Métis and Inuit Contributions to the World into the K–12 Curriculum." *Education Canada* 54.3 (Summer 2014): n. pag. Table available on the Canadian Education Association (CEA) website at <http://cea-ace.s3.amazonaws.com/media/CEA-2014-Ed-Can-V54-No3-toulouse-tables.pdf> (19 Nov. 2014). Content on <www.cea-ace.ca> is licensed under a non-exclusive Creative Commons Attribution Non-Commercial No Derivatives License. License Deed at <http://creativecommons.org/licenses/by-nc-nd/2.5/ca/>.

The Landscape of Literacy with Information and Communication Technology

Literacy with information and communication technology (ICT) means thinking critically and creatively, about information and about communication, as citizens of the global community, while using ICT responsibly and ethically.

Integration of Literacy with Information and Communication Technology

Rationale

You plant and nurture many of the seeds of literacy with ICT within your Kindergarten classroom. These seeds may seem to have little to do with technology right now, but they grow into critical and creative thinking and ethical and responsible use of ICT later in a child's life. Literacy with ICT finds its way across the curriculum through inquiry. The **big ideas** outlined in the *Developmental Continuum for Literacy with ICT* are congruent with inquiry, as described in several Manitoba curricula and within this document.

The big ideas in literacy with ICT are:

- Plan and Question
- Gather and Make Sense
- Produce to Show Understanding
- Communicate
- Reflect

(continued)

Integration of Literacy with Information and Communication Technology

Organization of Literacy with ICT in Kindergarten

When you plant and nurture the seeds of literacy with ICT, children will grow strong roots.

With the seeds of	Children grow the strong roots they need to
■ *empathy, respect, understanding, and celebration of all our differences*	■ learn to care for one another, and develop empathy and compassion ■ become less likely to take part in or be bystanders to bullying and cyberbullying, and more likely to be advocates and participants in social justice initiatives
■ *communication skills, such as social and emotional learning and conflict resolution*	■ communicate feelings and needs constructively and help lessen the miscommunications and negative interactions that often occur through online communications during the preteen/teenage years
■ *respect for and appreciation of work and effort done by others*	■ develop awareness and understanding of authorship of intellectual property, copyright, plagiarism, and the importance of acknowledging the work of others
■ *self-awareness and metacognition of strengths and weaknesses and how to learn*	■ become self-regulating, confident, lifelong learners who can find resources/information and create relationships/learning networks they need to navigate through the Kindergarten to Grade 12 landscapes and beyond
■ *inquiry, exploration, questioning, wondering, and experimenting*	■ develop skills in critical thinking (judging information for accuracy, relevance, credibility, fairness, and bias of information), creative thinking, problem solving, inventing, designing, creating, generating ideas, and exploring diverse approaches
■ *wonderment and love of nature, animals, and our world*	■ work creatively toward a sustainable world

ICT Literacy-Rich Learning Environment

Many technological devices provide a tactile experience and a simple interface for children to engage with as they use the devices.

- Interactive whiteboards and touch-screen tablets can provide resources that allow for interactive exploration and discovery opportunities for children.
- Digital cameras come in sturdy versions so that young children may use them.
- Programmable robots are available for children to learn about the rudiments of programming, such as command sequencing and problem solving.

Technology should be available to children on a "just in time, just enough" basis. With more and more devices available to children in the classroom, there is less need to make use of computer labs or to have all students working on the same task at the same time. Instead, children may have access to a variety of technologies, such as tablets, digital cameras, voice recorders, and computers, to assist them in whatever learning experience they are working through.

Infusing Literacy with ICT into the Kindergarten Classroom

Two friends work together on the class computer.

As emphasized throughout this document, a strong Kindergarten learning program intentionally incorporates learning materials that support the concepts of children's interaction with their environment and with each other through exploration, discovery, and play. The sand table, the water table, the block centre, the dramatic play centre, and a variety of other learning centres are integral parts of the learning process in the Early Years, so why not literacy with ICT?

Most young children today have opportunities to interact with technology long before they enter your Kindergarten classroom. They may have programmable toys and electronic games available to them at home, or at a library, grocery store, bank, or restaurant. Many children also have access to a computer/laptop or a touch-screen mobile device in their homes. Many Kindergarten children are confident users of many kinds of digital devices, and are also consumers and producers of a wide range of media resources in both low-tech and high-tech forms. Children can create stories, illustrate them, add music or special effects, tell their stories in their own voice, email stories to their parents, or print them. Children can collaborate on the creation of a class DVD about the alphabet, prepare a PowerPoint presentation about their inquiry, draw themselves as part of a drawing on an interactive whiteboard, add content to their classroom website, Skype with friends in another town or another country, use the digital camera to document their own learning, and so much more.

How should this technology be infused practically into an Early Years classroom? As with any other piece of equipment, the use of technology will depend on your own attitudes, imagination, and organizational variables. All teachers bring their own experience, knowledge, and wisdom into play as they model and guide their students in the critical and creative thinking and ethical and responsible use of ICT.

Before you incorporate any ICT learning experience into your classroom, consider whether it will provide the most appropriate and most effective avenue for meeting the learning outcomes you want to address. Reflect on whether the learning experience will

- foster interaction between children and your learning environment
- encourage exploration and discovery
- enhance or augment ongoing inquiry

Children use tablets with developmentally appropriate software during choice time.

Children should be creators, collaborators, communicators, and critical thinkers through technology infusion, rather than passive consumers of games and applications.

As you observe the individual children in your classroom, watch for how children respond to each specific learning experience. If the equipment and the activities incorporating the equipment are of value, you can work out the implementation logistics. When assessing the use of the technology in this frame of reference, remember the multiple dimensions to consider, such as the technology itself, the amount and type of access the children have to the technology, and the ways in which the children are using the technology to enhance/extend their learning.

How do you choose which applications/software to use in your Kindergarten classroom? Here again, as in selecting any resource to be used within the classroom, you must make some pedagogical choices. The applications/software must reflect the goals and objectives of your Kindergarten learning program and afford a dimension of learning consistent with the concepts of exploration, discovery, and play. This being the case, many types of software should be avoided. Drill and practice software is highly inappropriate in your classroom. Tutorial programs that teach a particular concept and then evaluate the child's understanding of that concept also have little place in an Early Years environment. Children should be creators, collaborators, communicators, and critical thinkers through technology infusion, rather than passive consumers of games and applications.

Use technology to support inquiry and open-ended learning (as children plan and question, gather and make sense, show their understanding, communicate, and reflect upon their learning). For example, video-conferencing software is a tool that may aid in inquiry-based learning, gathering information, developing oral language skills, building community and connection, and so on (as shown in the vignette Little Hands, BIG World earlier in this chapter). An important guideline for selecting applications is that the child has control over the technology and that the application is not a glorified worksheet. Many applications simulate experiences that the child could have with concrete materials. Remember that the device itself is not designed to eliminate these experiences, but is intended to offer new avenues of learning and to afford the child another medium through which to explore and create.

Place any interactive whiteboard at child level instead of at adult level. Make it accessible to the children. Some teachers make the whiteboard one of the play centres available during choice time. They even make it one of the daily jobs that students take turns being responsible for as the leader for that centre. The leader might choose the games that will be played, start the games, facilitate turn taking by peers as they play, problem solve as needed, and close down the games and make sure everything is back in its place when done. The whiteboard not only offers learning to the children playing the games, but also gives the designated student leader the opportunity to take on the leadership role and experience some of the responsibilities that go along with that role.

Have digital cameras available and stored in cases with an easy check-out/check-in system so that children have easy access to a camera during their learning.

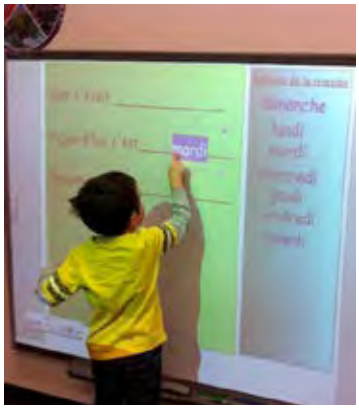
Using Technology to Enhance and Extend Learning

Teachers are currently infusing technology to support learning in their Kindergarten classrooms in a variety of ways and for a variety of purposes, such as the following:

- **Create relationships and provide authentic audiences:** Connect and collaborate with other classes and people within the community/city and/or around the world to co-learn and teach each other and to share the learning. Get involved in global or local online projects using the Skype video-conferencing application or another synchronous tool to communicate live. Teachers might also use a microblogging tool such as Twitter for shared writing, communicating, and sharing student work with a real audience.
- **Document learning, inquiry, and scientific process:** Use a digital camera or a device with a camera to record images, audio, and/or video of children's learning. Students can also document their own learning to show a process or express what is important to them in the learning.
- **Create storytelling and storybooks:** Children can write stories, or you may scribe their stories for them. They can create illustrations for their stories (whether online or offline, and then take a picture) and put their stories together as videos with animation and music, in a slideshow, or in a bookmaking application and have it printed. Applications such as Draw and Tell, Book Creator (for a tablet), and Storybird (website) are available for collaborative storytelling.
- **Assist with classroom routines and procedures and communication with parents:** Use technology, such as a digital calendar, interactive whiteboards at learning centres, and a classroom web page (e.g., a Facebook page, a blog, a wiki), to aid in classroom procedures and routines and to enhance communication with families.
- **Develop a personal professional learning network:** Educators may connect, collaborate, and share using social networking technology (e.g., #Kinderchat or #mbkteachers on Twitter) and by participating in online professional learning offered through webinars or online courses.

- **Model, model, model:** Model critical thinking whenever you access information using technology, model creative thinking as you problem solve or create something new using technology, and model ethics and responsibility as you communicate using technology and whenever you access the work of others using technology. Children learn so much from how we behave and what we do and say. It is never too early to discuss being a good digital citizen with your students.

Many vignettes throughout this document share ways teachers infuse technology into the curriculum in their Early Years classrooms.



(L) Calendar time can be facilitated through the use of an interactive whiteboard.

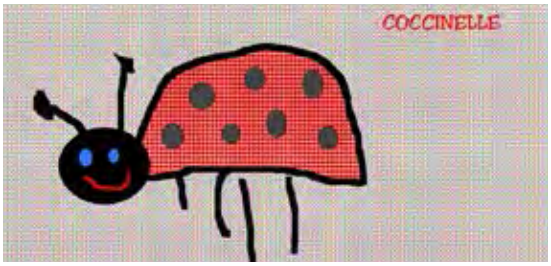
(R) Using *The Very Hungry Caterpillar* (Carle) motif, children retell the familiar story using the interactive whiteboard (similar to the way a flannelboard story might be used for retelling a story children know well).

(L) Children practise counting by 5s using a feature on the interactive whiteboard. When they are correct, the number lights up green.

(R) Junior Kindergarten children in a rural school Skype with friends in a Winnipeg Kindergarten, sharing their mutual interest in birthday party play with the help of their collaborative teachers. The Kindergarten class holds up a chart of what they need for their dramatic play centre.

(L) Before the children try out a new art technique, the teacher introduces the work of artist Georgia O'Keefe, famous for her extreme close-ups of flowers, using chalk and blending.

(R) Later, the children try out the use of chalk and various blending tools, including their fingers.



Notre Abécédaire: A Français Kindergarten class created and starred in their own DVD of the alphabet, working with multiple representations, manipulating concrete materials, developing written language, and enhancing oral language. Each family received a copy of the DVD at the end of the project, a wonderful souvenir.

The Landscape of Diversity Education and Inclusion

Diversity education is about exploring diversity and equity issues and supports the integration of diversity and equity education throughout the curriculum, classroom, and school. To respond to diversity, use *inclusion* as your navigational tool to ensure that all children feel valued, have friends, and feel they belong in their Kindergarten classroom.

Integrating Diversity Education and Inclusion

Rationale

The reality of living in a diverse and pluralistic society, regardless of one's origins and social contexts, necessitates that young learners have the opportunity to experience schooling that is culturally appropriate and relevant, encourages social caring and inclusion, and challenges prejudice and discrimination.

Organization of Diversity Education and Inclusion in Kindergarten

Belonging, learning, and growing are key themes in diversity education from Kindergarten through Grade 12.

(continued)

Diversity and Inclusion-Rich Learning Environment*

An environment that promotes diversity and inclusion reflects certain essential characteristics:

- **Grounded in the lives of children:** Good teaching begins with respect and concern for students, their innate curiosity, and their capacity to learn. The Kindergarten curriculum needs to be rooted in the real lives and contexts of the children in your classroom. Creating effective learning environments requires that the lives of the children, as well as the topics they explore, provide the content of the classroom experience. Your students need opportunities to consider and inquire how their lives connect to the broader society.
- **Culturally sensitive:** Classrooms that are places for critical teaching and learning are built on the premise that teachers "don't know it all." Each new class presents opportunities for you to learn from the children, and requires you to be a good researcher and listener as you co-construct learning together. As you work with children of diverse cultural origins and ethnicities, you may call upon families, your colleagues, and other community resources in order to understand and meet children's needs and for insights into the communities you serve.
- **Equity-focused and anti-biased:** A Kindergarten curriculum grounded in social justice and awareness of social diversity is inclusive of every child in your class. With our increasingly diverse student population and nation, your Kindergarten classroom needs to directly address issues related to race, class, gender, and other aspects of educational equity. We need to do more than simply "celebrate" diversity. We may take on the "hard stuff" of exploring why some differences translate into wealth and power, while others become the basis for discrimination and injustice. We can intentionally include the experiences and voices of First Nations, Métis, and Inuit peoples, people of colour, women, and other diverse groups in our society.
- **Critical:** The Kindergarten curriculum helps equip children to engage in dialogue and to challenge the world. Children need to develop skills and insights that allow them to pose essential questions.
  - Who holds power and makes decisions in society? Who is left out?
  - Who benefits and who suffers?
  - What is fair practice? What is discriminatory or unfair practice?
  - How is change created?

  Children should have opportunities to examine and question social reality. Wherever possible, learning should encompass issues and problems in the world outside the Kindergarten classroom walls.
- **Participatory and experiential:** To help ensure that children are not passive learners, use exploratory and experiential learning approaches in which children are involved in planning and decision making. Learning experiences that involve children physically and cognitively can provoke their democratic capacities: to question, to challenge, to make real decisions, and to solve problems collectively.
- **Hopeful, joyful, caring, and visionary:** Classrooms in which students feel significant and cared for are at the heart of an inclusive school. Unless your students feel safe—emotionally and physically—they will not reveal their true selves or their real thoughts and feelings, and discussions will be artificial and dishonest. Design learning experiences that help your students learn to trust and care for each other (and you).
- **Authentic:** An inclusive classroom focused on social justice provides children with the skills they need to navigate the world, and to take action to change the world. When young learners create products for real audiences about significant issues, and discuss big ideas with compassion and intensity, academics come to life.
- **Supportive of students as social activists and engaged citizens:** To help children see themselves as voices for justice and agents of change, encourage them to critique the world, take a stand, and act in ways that are meaningful. Part of your role is to reinforce the fact that ideas have real consequences and need to be acted upon. Children may draw inspiration from historical and contemporary individuals who struggled for social justice, peace, and human rights. A critical curriculum and classroom reflects the diversity of people from all cultures and both genders who acted to make a difference, many of whom did so at great sacrifice.

* Source: "Rethinking Our Classrooms: Teaching for Equity and Justice." *Rethinking Schools* 18.1 (Fall 2003). Available online at <www.rethinkingschools.org/ProdDetails.asp?ID=RTSVOL18N1> (3 Feb. 2015). Adapted with permission.

Creating Inclusive Kindergarten Classrooms

Developmentally, many Kindergarten children are particularly moved by what is "fair" and "right" and inspired by actions taken by Canadian heroes, such as Terry Fox. There can be many teachable moments during which children are ready to learn about and discuss inequity and to reflect critically on stories they have read, movies they have seen, or things they have heard people say, and to begin to challenge those ideas. For example, stories that portray females as being in need of rescue, such as Cinderella or Sleeping Beauty, might be countered through the introduction of other fairy tales, such as Robert Munsch's *The Paper Bag Princess*, to challenge stereotypes that females are the weaker or less powerful gender.

Developing Cultural Competence

- Get to know families whose children attend your Kindergarten. Where do they live? What is the neighbourhood or community like? Where do families gather (e.g., the hockey rink, the family centre, places of worship)?
- Engage in real conversations with families. What are their strengths? How do they celebrate family milestones? What are their holiday customs? If they are newcomers to this province, how did they come to Manitoba? How can their hopes and dreams for their children, their family history, and their customs enrich your day-to-day curriculum?
- Reflect on your own biases, assumptions, values, and beliefs when you encounter difference. Commit to learning more about the Treaty Education Initiative (Treaty Relations Commission of Manitoba). Keep in mind that "by placing yourself in situations that cause a sense of cultural disequilibrium, you can better understand how the children and their families feel when they come to school" (Colombo 6).
- Expand your knowledge base and form a professional learning community with other teachers in your school or school division. Read about other cultures and belief systems and select educational books that recognize and celebrate differences in young children. (For suggested resources, see Continue Your Learning at the end of this chapter.)

At one school, children were asked to bring a food item to help create several hampers for the Christmas Cheer Board. Kindergarten children were excited to contribute their cans of soup and boxes of pasta, and each day children counted and rearranged the growing pile of items in "their" box. One child asked, "Why are some people hungry?" This innocent question sparked an inquiry with a rich social/cultural/historical learning context (Why are children hungry in the world?). It led to many conversations about the cost of food (further explored in the dramatic play centre where a grocery store was set up) and about food being wasted in the classroom during snack, when too many uneaten snack items ended up in the trash. Building on an earlier social studies exploration about needs, the teacher pointed out that people who work can still be poor if their jobs do not pay them enough to buy food and other necessities for themselves and their families. Children showed personal responsibility by contributing to the hamper, but also social action as they began to explore why people are hungry and how they could help to solve root causes. They determined to write a letter to the mayor that declared, "No kids should go to bed hungry!"

In another class, an argument broke out when girls wanted to use unit blocks in the centre where a group of boys were already busy building. One boy was especially adamant that the blocks were boys' toys and the girls could not play. The teacher recognized this opportunity as a teachable moment to introduce the idea of gender stereotyping and bias. During whole-group time, children discussed whether there were, in fact, "boy" and "girl" toys in the classroom, and, to the teacher's dismay, it became clear that more than a few children believed this to be true. Blocks, balls, and trucks apparently belonged to boys, while the kitchen, the dolls, and the art centre were the girls'.

Later, the teacher looked at her classroom with new eyes, reflecting on how she could intentionally create a more gender-neutral classroom through the choice of colours, room arrangement, and types of materials children encountered. (See Chapter 5 for more discussion about how to design the learning environment.)

Creating inclusive classrooms that encourage critical thinking is complex and demanding work that requires vision, support, and resources. Shared experiences with other educators, support networks, and collections of diverse resources are critical components of inclusive Kindergarten classrooms.

As a teacher, you have the opportunity to design learning environments that stimulate, extend, and expand children's natural curiosity. When you are successful, children develop their physical perception and skills; deepen awareness of self and community; gain knowledge; enhance problem-solving skills; and develop critical and imaginative thinking within rich contexts for inquiry, meaning making, and communication. These developmental outcomes can be facilitated through less formal learning experiences, such as having children work together to create salt-dough clay. Their collaboration provides an inclusive, participatory, and experiential learning opportunity, meeting important inclusion and diversity goals, while also meeting English language arts, mathematics, and science learning outcomes.

Children create salt-dough clay.

A longer, more intentionally focused inquiry path designed around the theme of trees will tap a child's natural curiosity about the world and may be integrated as part of an investigation of trees and wooded areas in the local community. Children might explore and reflect on the importance of natural spaces, the need for other living things to have trees as habitats, and how trees in their community contribute to the well-being of people. Seasonal changes in trees are a natural starting point for an exploration of other changes that take place in the community throughout the year.

In the fall, children may be very curious about why colour changes take place among various trees and plants, and this inquiry might be integrated as a way to describe and represent seasonal changes in their community's decor. Paper may be used as a medium to create a representation of an ideal community (such as a diorama), or children might explore the characteristics of different kinds of paper to determine which is best suited for the representations they create. Perhaps most importantly, children play among the leaves and trees, and so it should be commonplace for them to realize eventually that paper from trees is a renewable resource that need not mean the end of trees. Trees can be described as living places that are full of life, that cleanse the atmosphere of certain unpleasant things, and that need to slumber in winter to make all things new in spring.

Vignette: Kindergarten Celebrates the Seasons*

The following vignette is an example of an integrated project-based approach to the curriculum and of family engagement in children's learning. It illustrates how children's questions about the natural world were used as the basis for designing learning encounters that bring together a number of subject areas and perspectives. Children explored multiple aspects of their learning landscapes, made meaning and connections, and communicated their feelings and learning in a variety of ways.

One Kindergarten class took part in an extended study with a rich imaginative and communicative learning context. Children learned about paper, trees and colours (science), measuring, estimating, and recording (mathematics), drawing and painting (visual arts education), experiencing poetry and writing about their learning (English language arts), using technology to support learning (ICT), caring for trees (ESD), and more. The children's inquiry encouraged intergenerational learning, as they needed to connect with their families along the way.

As the Kindergarten class had been busy celebrating the seasons, the class adopted trees outdoors and the children used digital cameras to photograph trees as a whole, as well as their various interesting parts. Some children had their families take photos of them in front of their favourite tree, which might have been at home, at their grandparents' homes or cottages, or at a nearby playground. This helped to make connections between children's lives at home and at school, and involved families in their children's learning. Other children had their photos taken in front of a favourite tree adjacent to or in the schoolyard. The children's own photos in front of "their" own trees were prominently displayed, and demonstrated the home-school connection.

Children's photos of themselves with "their" trees.

Children measured the circumference of their trees with yarn, and then later measured the length of the yarn with Unifix cubes. They recorded their guesses about the circumference of their trees, and then their actual findings. This learning experience helped children to deepen their numeracy understanding through the use of manipulatives. It also provided opportunities to practise estimating and helped children to create links among concrete, pictorial, and symbolic representations of mathematics. The teacher used and promoted mathematics language in the school and classroom and promoted joy and enthusiasm for mathematics.

Seasons

The Cree of Northern Manitoba recognize six seasons, including breakup, which occurs between spring and summer, and freeze-up, which occurs between fall and winter.

* Used with permission of a Kindergarten teacher.

(L) A chart of children's brainstorming about trees. (R) Books about trees were added to the science centre.

The children also did their own bark rubbings and sketches during their fall visit. All the photographs, measurements, rubbings, and sketches were kept in a Tree Book. The science centre had many interesting "tree" materials for the children to explore, including birchbark, pieces of a branch, and a trunk on which children could clearly see rings, pine cones, nests, and so on. Books about trees were placed in the science centre to support children's investigations further.

During the children's shared writing time, their teacher encouraged brainstorming about the many things they appreciated about trees, while charting their ideas to extend the children's learning.

In Kindergarten, children make meaning before, during, and after viewing, listening, and reading a variety of oral, literary, and media texts. They also communicate their own understanding through representing, speaking, and writing with others. Throughout this project, Leo Lionni's book *Frederick* was read as a way of celebrating the seasons and seasonal changes. Children especially enjoyed the way Frederick vividly describes how the seasons are controlled by four mice: the Springmouse who makes the rain, the Summermouse who colours the flowers, the Fallmouse who harvests the nuts and grains, and finally the Wintermouse who has small cold feet.

As discussed in earlier chapters, teaching holistically and in an integrated manner is the process used within the Reggio Emilia approach where

> the arts are integrated into the school program as problem-solving activities, rather than as discrete subjects or disciplines taught for their own sake. . . . Children's art making is emphasized to reinforce concepts, and their art products are considered to represent aspects of their learning. Visual arts are seen as an additional "language", one in which the children's ideas and concepts are expressed in art media. (Edwards, Gandini, and Forman, as cited in Thompson 61)

Using a number of paint techniques, the Kindergarten class painted a tree in every season, exploring texture, colour, and various paint techniques.

Once the seasons were complete, the children finished this project by writing the words "Winter, spring, summer, fall, we love them all!" The children's art encouraged *individual expression* and was beautifully displayed in the classroom at the children's height, showing respect for their work.

Children's tree art is beautifully displayed.

Seedlings are cared for by the children in anticipation of planting them in the spring.

The Kindergarten children also received small seedlings from the Manitoba Forestry Association, nurtured them carefully, and took them home for planting with their families in the spring. This particular learning experience infused the ESD theme of concern for all living things in our environment into this extended inquiry.

The learning about trees addressed a number of specific Kindergarten learning outcomes across a number of subject areas and shows how playful learning, inquiry, and extended projects can integrate across subject areas in a coherent, meaningful way.

Reflection: Learning Outcomes and Integratables

As you reflect on the above vignette, consider questions such as the following:

- Which specific learning outcomes from the Kindergarten curricula have been addressed in this vignette?
- Which integratables have been woven in?

Summary

In this chapter, you considered how integratable elements of learning can infuse the learning unfolding in your play-based Kindergarten classroom. In Chapter 10, the final chapter in this document, you will learn about how Manitoba's Kindergarten teachers collaborate with colleagues in their schools, with children's families, and with members of the early childhood education community to scaffold upon children's prior learning experiences at home and/or in early learning centres and to align pedagogical approaches as far as possible. Community involvement and family connections are essential to providing quality learning environments for young children. In the final chapter, you will also think more deeply about partnership approaches with personnel in your own school, and how to create seamless transitions for young learners as they move from preschool into Kindergarten and then on to Grade 1.

Continue Your Learning

Education for Sustainable Development Resources

- The Child & Nature Alliance of Canada. Home Page. <www.childnature.ca> (21 Nov. 2014).
- Children & Nature Network. Home Page. <www.childrenandnature.org> (21 Nov. 2014).
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- FortWhyte Alive. Home Page. <www.fortwhyte.org> (21 Nov. 2014).
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- Manitoba Nature Summit. *Manitoba Nature Action Collaborative for Children*. <www.naturesummitmb.com/tag/manitoba-nature-action-collaborative-for-children/> (21 Nov. 2014).
- Oak Hammock Marsh Interpretive Centre. Home Page. <www.oakhammockmarsh.ca> (21 Nov. 2014).
- ThinkTrees Manitoba Forestry Association. *Nature Trails*. <www.thinktrees.org/Nature_Trails.aspx> (21 Nov. 2014).
- Woodland Trust Nature Detectives. *Packs*. <www.naturedetectives.org.uk/packs/> (21 Nov. 2014).
- World Forum Foundation. *Nature Action Collaborative for Children*. <www.worldforumfoundation.org/working-groups/nature/> (13 Feb. 2015).

First Nations, Métis, and Inuit Perspectives Resources

- Manitoba Education and Youth. *Integrating Aboriginal Perspectives into Curricula: A Resource for Curriculum Developers, Teachers, and Administrators*. Winnipeg, MB: Manitoba Education and Youth, 2003. Available online at <www.edu.gov.mb.ca/k12/docs/policy/abpersp/> (17 Jan. 2014).
- Treaty Relations Commission of Manitoba. "K–12 Treaty Education Continuum, 2013–2014." *Treaty Education Initiative*. <www.trcm.ca/treaty-education-initiative/k-12-treaty-education-continuum/> (13 Feb. 2015).

  This website offers treaty education teacher guides and resources, including specific suggestions on how to infuse learning about treaties into the Kindergarten Social Studies curriculum.

Literacy with Information and Communication Resources

- Campaign for a Commercial-Free Childhood (CCFC), Alliance for Childhood, and Teachers Resisting Unhealthy Children's Entertainment. *Facing the Screen Dilemma: Young Children, Technology and Early Education*. Boston, MA: Campaign for a Commercial-Free Childhood; New York, NY: Alliance for Childhood, Oct. 2012. Available on the CCFC website at <www.commercialfreechildhood.org/sites/default/files/facingthescreendilemma.pdf> (17 Jan. 2014).
- Caring for Kids: Information for Parents from Canada's Paediatricians. "How to Promote Good Television Habits." *Growing and Learning*. Canadian Paediatric Society. <www.caringforkids.cps.ca/handouts/promote_good_television_habits> (21 Nov. 2014).
- Companies Committed to Kids: Long Live Kids! Home Page. <www.cca-kids.ca/> (21 Nov. 2014).
- Levin, Diane E. *Beyond Remote-Controlled Childhood: Teaching Young Children in the Digital Age*. Washington, DC: National Association for the Education of Young Children, 2013.
- Manitoba Education and Advanced Learning. *Literacy with ICT Across the Curriculum*. <www.edu.gov.mb.ca/k12/tech/lict/index.html> (13 Feb. 2015).
- Media Smarts: Canada's Centre for Digital and Media Literacy. Home Page. <http://mediasmarts.ca/> (21 Nov. 2014).
- National Association for the Education of Young Children, and the Fred Rogers Centre for Early Learning and Children's Media at Saint Vincent College. *Technology and Interactive Media as Tools in Early Childhood Programs Serving Children from Birth through Age 8*. Joint Position Statement. Jan. 2012. <www.naeyc.org/content/technology-and-young-children> (26 Aug. 2013).

Diversity Education and Inclusion Resources

- British Columbia Ministry of Education. "Kindergarten to Grade 3." *Making Space: Teaching for Diversity and Social Justice throughout the K–12 Curriculum*, 2008. 19–27. Available online at <www.bced.gov.bc.ca/irp/program_delivery/making_space/mkg_spc_k3.pdf>. The full document is available at <www.bced.gov.bc.ca/irp/pdfs/making_space/makingSpace_full.pdf> (21 Nov. 2014).
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- Derman-Sparks, Louise, and Julie Olsen Edwards. *Anti-Bias Education for Young Children and Ourselves*. Washington, DC: National Association for the Education of Young Children, 2010.

- Media Smarts: Canada's Centre for Media and Digital Literacy. "Find Lessons and Resources." *Teacher Resources.* <http://mediasmarts.ca/teacher-resources/find-lesson> (21 Nov. 2014).
- New South Wales (NSW) Education and Communities. *Prejudice. No Way! Anti-Prejudice Activities for Years K–3.* 2012. <www.prejudicenoway.com/> (21 Nov. 2014).
- Teaching for Change. "Early Childhood." *Anti-Bias Education.* <www.tfcbooks.org/best-recommended/earlychildhood> (21 Nov. 2014).
- Wood, Jeffrey W. "Moses's Story: Critical Literacy and Social Justice in an Urban Kindergarten Program." *Voices of Practitioners.* National Association for the Education of Young Children. <https://www.naeyc.org/files/naeyc/file/vop/VoicesWood.pdf> (21 Nov. 2014).

Chapter 10:

Continuity and Partnerships

Chapter 10: Continuity and Partnerships

Guiding Principle: Partnerships and Continuity

Kindergarten teachers honour children's families and communities, recognizing that children interact with and learn in a variety of contexts and that family engagement in children's learning is a critical support for their school success. The continuity of children's past, present, and future learning is best supported through coordinated home, school, and community approaches.

Children's learning is enhanced through strong family and community connections. As such, teachers honour and respect children's families and commit to inclusive and collaborative partnerships with parents and guardians. Teachers take the time to learn about the dreams, values, expectations, and factors that shape each of their students' lives at home and in their communities. Family involvement helps to create optimal learning experiences that are relevant for and respectful of each child and helps parents to engage fully in their child's learning and development. Teachers invite families to participate in decision making and goal setting for their children wherever possible.

Manitoba's Kindergarten teachers recognize that young children may have previously attended early learning and child care facilities, Aboriginal Head Start centres, nursery schools, or other early childhood development (ECD) programs. Many Kindergarten children attend another ECD facility during non-school hours. We can help children to successfully negotiate transitions between their various experiences when we scaffold on their prior knowledge. We actively communicate and partner with other early childhood professionals in our community, and with allied professionals in our school.

The Importance of Family and Community

From an early age, children are active participants in their families and communities. Families provide their children with their first and most important learning experiences. As such, families have a central role in promoting their children's well-being, learning, and development in the context of supportive communities. How can we build effective partnerships that bring out the best in us as teachers and early childhood educators (ECEs), and in parents and community partners, for the benefit of our Kindergarten students?

The importance of the social environment to children's learning is discussed throughout this document. Clearly, however, a culture of respect, inclusion, and mutual acceptance benefits parents and teachers as well.

Cultural Perspectives on School-Family Relationships

For some families, the roles promoted in Manitoba schools may be new and culturally unfamiliar:

> Beliefs about how parents should support their children's education are grounded in cultural perspectives and influenced by the historical relationships of schooling with family, faith institutions, and the state. . . . People within a society tend to assume that the ideas they hold are conceptually universal, and schools and families may not be aware that they hold different expectations about the other's responsibility (Hiatt-Michael). Newcomer parents may have experienced school systems quite different from Manitoba's in organization and educational methods.

Source: Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft.* Winnipeg, MB: Manitoba Education, 2011. Section 1, 1–28 to 1–29. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

Early Years educators recognize the unique strengths in every family and within each community. A family's values, beliefs, and composition often come from their own unique racial, ethnic, cultural, and religious backgrounds and may differ from the values and beliefs expressed in schools or other ECD programs.

Developing and maintaining a strong relationship with each family is vital for understanding and meeting the needs of children. What is involved? You commit to collaboration with families and aspire to ensure continuity of experiences for young children. You actively involve all important adults in the children's lives in order to offer a truly family centred approach. You encourage capacity building through family-to-family connections. As far as possible, you commit to continuity between home and school for young children and their families.

Continuity and Discontinuity

Children and their families may encounter continuity or discontinuity during the children's transition to school:

- *Continuity* occurs when the new environment (your Kindergarten classroom) builds on the previous experiences of the child. For example, if the new environment maintains similar routines or activities (things that are familiar to the child), there is a sense of continuity. Similarly, when the new environment provides information and supports parent engagement, there is continuity of experience for families.
- *Discontinuity* occurs when changes are abrupt and children and their families experience little support or assistance in handling those changes. According to the Centre for Community Child Health, "the key discontinuities are those involving differences in curriculum and teaching strategies, difficulties in sharing information, and disruptions in the relationships children and families have developed with teaching staff" (4). If we are not purposeful in our support of children's transitions, and their move from one environment to another is abrupt, then children may experience discontinuity. Children who have difficulty adjusting to a new environment most often show this in their behaviours.

Clearly, "continuity and connectedness between children's past, present and future are essential for smooth transitions and success in life and learning" (State of Queensland 6). Kindergarten teachers and ECEs can intentionally facilitate continuity of learning for young children in Manitoba. This chapter discusses some of these intentional strategies.

As discussed in Chapter 3, the role of community in supporting children's security and belonging is integral to the Reggio Emilia philosophy and practices. Each child in your class is a member not only of the Kindergarten community, but of the larger community as well. In the early childhood development community, your partners may include public health personnel, ECEs, the children's librarian at a local library, the coordinator of a family centre, and many others. Within your own school, partners will include your Grade 1 colleagues, educational assistants who work within your classroom, allied professionals such as speech-language pathologists, and others. You can work toward continuity with all these partners, including families.

Indigenous Families

According to census and Manitoba Health data, "Manitoba has a high percentage of Aboriginal families and children, and this diversity is growing. Aboriginal children under six (not including those who live in First Nations communities) represent 19% of all children under six in Manitoba, compared to 5% in Canada" (Healthy Child Manitoba, *Starting Early, Starting Strong: Manitoba's Five-Year Plan* 4). We welcome many First Nations, Métis, and Inuit children into our Kindergarten classrooms, and we need to know about these young learners and their families.

An Indigenous family enjoys storytime together.

Relationships are of paramount importance in an Indigenous world view, beginning with people's relationship to the land, which is honoured as Mother Earth. The significance of this terminology is underscored by the respect given to the natural world as the provider of the means by which people are able to live a good life (in Cree, *mino pimâtisiwin).* When First Nations say, "all my relations" in prayer, they refer to the elements of nature.

Indigenous family structures extend beyond the conventional Western nuclear family. This kinship model includes cousins, aunts, uncles, grandparents, and others in the community who are considered family, although the blood ties may be distant or non-existent. Children are often raised by grandparents or aunts and uncles.

The Indigenous social organization revolves around community. Traditionally, the community is of prime importance, and, in this world view, rights and obligations are communal rather than individualistic. There is an overlap between family and community, and one's relationship to community is of great importance. Teachers

in First Nations, Métis, and Inuit communities especially need to develop good relationships with all community members, but this a recommended practice for all teachers.

Elders are key members of Indigenous communities. They are the respected keepers of knowledge and traditions to whom the community looks for advice and wisdom. The title *Elder* is a recognition and respectful acknowledgement by the community of an individual's knowledge and wisdom. Elders can play an important role in the classroom; classroom visits and other interactions with Elders are integral to the education of children. Teachers should be aware of the protocols related to consulting Elders and respectful interaction with them. For suggested protocols to follow, please refer to Appendix S: Elders in the Classroom.

Factors That Influence Children within Their Families

Children entering school today come with experiences that may vary greatly from those their parents or grandparents had at a similar age. Many factors influence the development of each child. You should be aware of these changing social elements and be informed about each child's situation. This knowledge will foster acceptance of various experiences and lifestyles and will be reflected in the types of learning experiences you provide.

Definition of Family*

The Vanier Institute of the Family defines "family" as:

Any combination of two or more persons who are bound together over time by ties of mutual consent, birth and/or adoption or placement and who, together, assume responsibilities for variant combinations of some of the following:

- Physical maintenance and care of group members
- Addition of new members through procreation or adoption
- Socialization of children
- Social control of members
- Production, consumption, distribution of goods and services
- Affective nurturance—love

* Source: The Vanier Institute of the Family. "Definition of Family." *Our Approach to Family.* <http://www.vanierinstitute.ca/definition_of_family>. The Vanier Institute of the Family's definition of family first appeared in "Family definitions: What's it to me? An interview with Robert Glossop," *Transition* Magazine, March 1992. Reproduced with permission.

The Changing Family

Our definition of *family* is much broader today than it was in past generations. We have experienced many changes in our ideas of marriage and families, gender relations and roles, division of labour, and typical life cycle patterns. Although today many family lifestyles may be non-traditional, all children—whether they live in a two-parent family, in an extended family unit, in a single-parent home, in a shared custody situation, in a foster home, or in another type of family unit—want and need to share their feelings and experiences and to feel unconditionally accepted. Likewise, all parents want to be "good parents." It is important for you to know the children in your classroom well and to be supportive and accepting of all types of families without bias.

Compared to previous generations, more children today are growing up in smaller

families without siblings; however, with increased rates of divorce and remarriage, many are part of blended families with assorted step-siblings and step-cousins. Statistics Canada estimates that "the national divorce rate is about 38%—meaning that, based on divorce trends today, about 380 out of every 1,000 marriages can be expected to end within 30 years" (Statistics Canada, 2004, as cited in Luxton 10). Children in your classroom may be part of diverse types of families, such as extended (multi-generational), multicultural, multi-religious, blended, sexually diverse, adoptive, foster, single-parent, sibling-led, grandparent-led, or common-law families, as well as traditional "nuclear" families. Children whose parents are divorced often experience a shared custody arrangement (Bohnert, Milan, and Lathe 11).

How do you sensitively support children from so many types of families? Begin with small steps. For example, replace a phrase such as "take this to Mommy and Daddy" with "take this home" to avoid having a child feel discomfort or confusion. Depending on the nature of a divorced family's custody or access arrangements, you might need to be sensitive to the non-custodial parent's feelings of being left out of the communication loop, or you may need to share information with two families. How can you keep parents who do not live in the same house as their child on a full-time basis "in the loop"? What about newcomer parents whose first language is neither English nor French?

Think about traditionally celebrated days such as Mother's Day and Father's Day, and be sensitive to the feelings of children who may have two mommies but no daddy, or the reverse. You might decide to celebrate National Family Week instead. Your genuine interest will foster caring and understanding between yourself and students, between you and parents, and among all students in the classroom.

A mother and her child with exceptional learning needs.

Manitoba's Changing Tapestry

Our provincial history is an ever-changing and evolving tapestry of peoples, languages, cultures, religions, technologies, and ideas, which began with our Indigenous peoples. This original tapestry was further developed by immigrants who migrated to this land over the last several centuries from around the world, many of whom were seeking freedom from the ravages of natural disasters, oppression, and war.

Manitoba's diversity has accelerated in the last several decades due to the growth of First Nations, Métis, and Inuit communities and to our success in attracting newcomer Canadians from around the world. According to Manitoba Health and federal census data, "immigration continues to be a leading contributor to population growth in Manitoba, having increased by more than 200% between 2000 and 2010. The majority of recent immigrants in Manitoba are from Southeast and Southern Asia, and Eastern Europe" (Healthy Child Manitoba, *Starting Early, Starting Strong: Manitoba's Five-Year Plan* 4). The result is a more complex and rich human tapestry of spiritual beliefs, languages, experiences, and cultures.

Mothers carrying babies on their backs is a common cultural practice across Africa. In response to one girl's request, swaths of fabric were used to tie dolls to the children's backs.

The diversity that is present in our land today and that will evolve in the future is seen not as an obstacle or a problem, but as a strength and a source of hope for the future. Respect for, or appreciation of, diversity has become the keystone that unites Canada and its people, and is often upheld as an ideal for the world as a whole.

How do you respond to this cultural diversity in your own Kindergarten classroom? Since you know that cultural practices vary from family to family, you seek to support each child's development and learning in a culturally responsive way. Children's development is optimized when there is continuity between the school, the home, and the early education and care environments in terms of experiences and expectations. Multilingual resources and communication tools, cultural/linguistic interpreters, and community outreach persons are common and often essential aspects of an effective community-involvement strategy.

Children in the Media Age

Most Kindergarten children have had experiences with television. In addition, they may have had some experience with various forms of digital media such as computers, tablets, smart phones, video games, and movies. They may have been exposed to inappropriate media content, heard profanity, seen explicit sexual acts, violence, gender stereotyping, drug and alcohol use, and so on. Some children may already be familiar with the use of social media, such as Facebook, to keep in touch with family, or may be video conferencing regularly with grandparents who live in another province or country.

Along the way, children will have picked up much incidental knowledge. They may have memorized many words, without necessarily understanding the concepts that match them. They sometimes appear ready for higher level thought processes than they actually are able to handle. Although children may appear more sophisticated or advanced today than children were in earlier generations, child development experts argue that this is not actually so. For these reasons, parents and teachers must remain observant, alert, and ready to provide the appropriate amount of guidance to young children throughout their development.

The Canadian Paediatric Society recommends that five- to nine-year-old children be limited to two hours or less per day of recreational screen time (TV, computer, video games, multimedia phones) (Lipnowski, LeBlanc, and Canadian Paediatric Society).

Stress and Mental Health

Family stress and trauma have developmental consequences and are real factors in the lives of many young children. Research has shown that prolonged "toxic stress" can have detrimental effects on the developing brain of a young child. Behaviour and development are affected when children experience stressful environmental situations such as parental depression and anxiety disorders, physical or emotional abuse, chronic neglect, addiction, domestic violence, and/or poverty. Newcomer children may exhibit temporary or long-term stress and mental health issues related to refugee, emigration, and settlement issues and experiences. In Manitoba, we have seen a substantial increase in the number of children with attention deficit hyperactivity disorder (ADHD) and with mood and anxiety disorders (Brownell et al.). Supportive relationships play a crucial role in mediating the impact of stress on mental health as children learn coping strategies and develop resiliency. Ultimately, "creating the right conditions for early childhood development is likely to be more effective and less costly than addressing problems at a later age" (National Scientific Council on the Developing Child 2).

Obesity and Physical Activity

According to the Canadian Paediatric Society, there is a global epidemic of childhood obesity, which continues to rise. The Canadian Paediatric Society reports that "up to 26% of young people (two to 17 years of age) . . . and 41% of their Aboriginal peers" are overweight or obese (Lipnowski, LeBlanc, and Canadian Paediatric Society). The risk factors for obesity are multi-faceted, but many are related to lifestyle and include sedentary time and non-exercise activity. Early childhood sedentary behaviour patterns worsen with age, but do respond to intervention. Children may be far more sedentary today than they were in previous generations. This may be due to a variety of reasons, such as the amount of time spent in front of various screens; overscheduling and a concurrent decrease in free play and outdoor play activities because of busy family lifestyles; and family perception about dangers inherent in allowing young children to play outside unsupervised.

Some school divisions and many teachers try to address these kinds of challenges directly by

- sharing information with parents about guidelines for physical activity and reducing screen time
- opening up schools in the evenings for parent-child drop-in physical movement activities
- dedicating time for recess or moving to the balanced school day schedule
- having children spend large chunks of time outdoors in natural environments
- ensuring that healthy food choices are available to children during school-sponsored meal or snack times

Preschool Experience

The internationally accepted definition of *early childhood* is the period of a child's life from birth to age eight years (Organisation for Economic Co-operation and

Development). In Manitoba, the term *early childhood* encompasses the period from birth to eight years of age, including both services and provision for children in the prior-to-school years and the early years of school, such as child care programs, Kindergartens, and nursery schools or junior Kindergartens.

A generation ago, Kindergarten may have been a child's first experience away from home; however, this is not the case for most children today. Many children have attended playgroups, nursery school, and/or some other type of early learning and child care program prior to Kindergarten. Some children who have had prior experiences in an early learning environment may be less intimidated or nervous about starting Kindergarten than those who did not have these experiences.

According to Statistics Canada, close to 78% of mothers with children from age three to five are in the paid workforce in Manitoba (Human Resources and Skills Development Canada), so most children in your Kindergarten class will have a mother working outside the home. As a result, many children in your Kindergarten class also attend an early learning and child care centre (or other caregiving experience) and may actually spend more hours of the day there than in your Kindergarten.

Early learning and child care (popularly referred to as *daycare*, although this term is no longer used by the government or in the field) is typically a full-day and often full-time experience for children whose parents are working or furthering their own education or who want socialization and early learning experiences for their children. About half of Manitoba's licensed early childhood education and care spaces are either co-located in schools or are on school property. The regulated child care system also includes licensed family child care providers who provide care in their own homes.

Part-day preschool services may be called preschools, nursery schools, parent-child or family centres, or children's centres. Some children attend Aboriginal Head Start centres, which are offered in some First Nations communities as well as in cities and towns in Manitoba. Some organizations offer part-day nursery school and full-time child care at the same location.

School-operated preschool options offered by some of Manitoba's school divisions may be called junior Kindergarten, *prématernelle,* child development centres, or nursery school. Many school divisions offer part-time or special learning experiences focused on early childhood development for children from birth to age five through the Early Childhood Development Initiative of Manitoba Education and Advanced Learning. Some school divisions host their own family centres, while others make space available to local parent-child centres, Aboriginal Head Start centres, and community-operated nursery school or early learning and child care facilities.

Whatever the location or sponsoring body, quality early learning experiences have been identified as a critical resource for young children and their families, benefiting all children, but particularly those from vulnerable groups. The evidence shows that they have both positive short-term and positive lasting effects on key developmental domains of language and thinking skills and social competence. Participation in high-quality child care does not threaten parent-child attachment or children's emotional development (Friendly and Prentice 107).

Access to licensed quality early childhood services in Manitoba, and indeed across Canada, is unequal, however: "In 2012, there were full- or part-time centre-based child care spaces for only 22.5% of Canadian children 0-5 years" (Ferns and Friendly 6–7), while 20.5% of children 0-5 years attend a licensed centre-based child care space in Manitoba

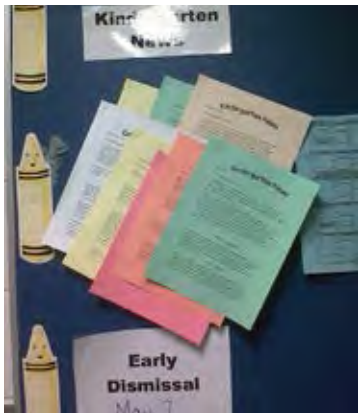
An ecological perspective on young children's development must take into account their prior and ongoing early learning experiences, both at home and in a variety of possible ECD locations. Bronfenbrenner notes that "the developmental potential of settings in the mesosystem are enhanced if . . . the different settings . . . encourage the development of mutual trust, a positive orientation, goal consensus between settings, and an evolving balance of power in favor of the developing person" (212). When we bridge institutional boundaries or perceived systems barriers and engage with families, we increase the likelihood of continuous learning for our Kindergarten children.

Involvement and Engagement of Families

As a Kindergarten teacher, you recognize your integral role in facilitating optimal learning and development for children in a year that is either the beginning of their educational journey or the point of transition from child care, nursery school, or other settings to a school environment. You are also keenly aware that a collaborative partnership between teachers and parents and families throughout their children's Kindergarten year is essential to children having the richest possible learning experiences at school and at home. The relationship established with families is particularly important in this time of rapid change to Manitoba's social landscape due to the increasing diversity of families, with respect to culture, language, family composition, and so on. The new landscape presents opportunities and challenges for teachers, students, families, and communities, which are met most effectively through joint efforts focused on optimal outcomes for learners through strong home-school connections established in the first years of school.

Families see a welcome sign in their first languages as they drop off their children at Kindergarten.

Families are invited to spend time in a special family centre established in many schools.



A Kindergarten News bulletin board outside the Kindergarten classroom provides families with current information as they drop off and pick up their children.

Although family engagement is more than information sharing, keeping parents informed is one important part of helping families understand what their children are learning. In Manitoba, we have long recognized and supported the crucial role of parents and families working in partnership with schools for the educational success of students. Often, parent/family involvement is encouraged primarily through schools inviting parents to participate in school activities/events and parent groups or committees, including parent advisory councils. Parents are asked to help their children at home by reading with them, ensuring they complete their homework, and so on. Fortunately, parents are generally most actively involved in interacting with their child's school during the earliest years of the child's education, including Kindergarten. Many parents work during school hours, so the chance to be a regular volunteer in the class may not work for all families. You may need to think of other less traditional but equally meaningful ways of engaging families.

Engaging Newcomer Families

For more support in engaging newcomer families, please see Section 1 (pages 1–28 to 1–34) of the following resource:

Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft*. Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

Parent/family engagement is increasingly acknowledged as an effective way to produce "much bigger gains for students, their parents, the school and the community" (Ferlazzo and Hammond 3). So, what is the difference between family involvement and family engagement?

Families want schools to welcome their active involvement/participation, provide them with opportunities to help, listen and respond to their concerns, keep them informed, and consider them partners in children's educational success (Governor's Office, State of Washington 4).

Ways to ask for family engagement:

- Tell me about your own hopes and dreams for your child.
- What can you tell me about how your child learns best?
- What role would you like to play in your child's learning?

Dictionary definitions of *involvement* and *engagement* demonstrate that the two terms are not synonymous. *Involvement* may be understood as something the school does to the parent, while *engagement* implies doing with. The most effective school-family connections are based on family engagement, which you can think of as a reciprocal commitment to one another for the benefit of the children. That means families and teachers co-create the agenda for their collaboration (rather than one party telling the other what to do); they make decisions together, and then take action in tandem. Everyone, especially children, benefit when engagement is authentic.

While recognizing that all practices used to involve families have value, the continuum presented in Figure 10.1 identifies family engagement practices proven to result in greater and lesser impact on student achievement. Where do you think your own practices fall on this continuum? What about your school as a whole?

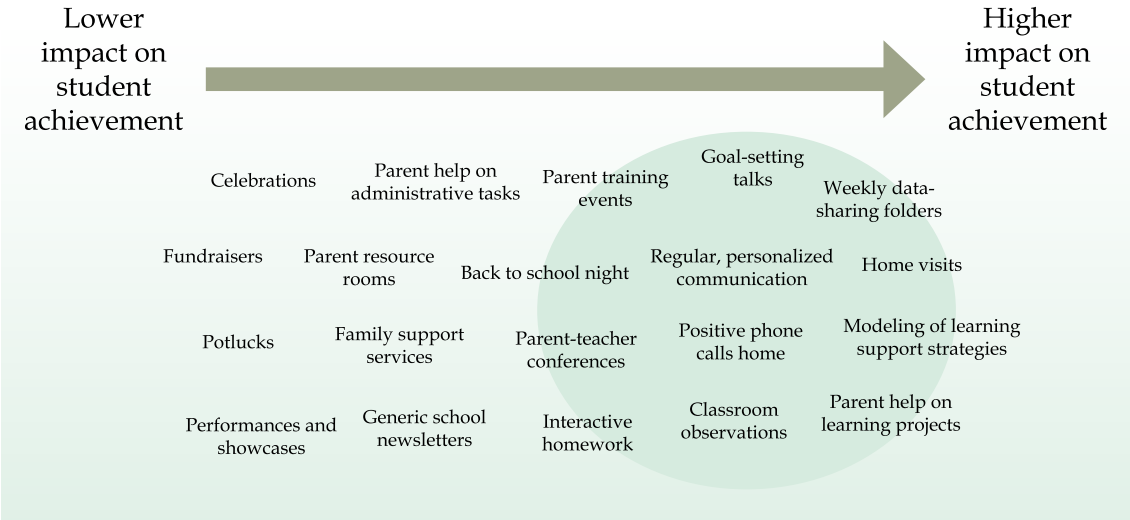


Figure 10.1: Relative Impact of Family Engagement Strategies on Student Learning*

* Source: The Flamboyan Foundation. Reproduced with permission.

As noted earlier in this chapter, Manitoba families are richly diverse, with an increasing number of newcomer Canadians choosing the province as home. These families may have had previous experiences with school systems that differ significantly from the Manitoba model with respect to organization and instructional methods. Indigenous caregivers may be reluctant to engage with school. Some of this reluctance may stem from the residential school era, which had an impact on generations of First Nations, Métis, and Inuit families and communities. Thus, it is imperative that you, as the Kindergarten teacher with frequent opportunities to interact with families, actively "listen" to and collaborate with parents/families to ensure they feel welcomed and safe enough to become true partners in their children's education.

Researchers note that it is not parental involvement per se that improves student achievement; rather, what contributes most is family engagement in learning within the home environment (Harris and Goodall 38). Parents "have a significant impact on their children's education through the attitudes they help shape and the direct support they provide to their children" (Ontario Ministry of Education, *Parents in Partnership* 7). Helping families to understand what is happening in the classroom—*what* their children are learning and *why*, and *how* they are doing socially, emotionally, and academically—is essential, especially in a play-based classroom where learning can look quite different from what parents may expect. Intentionally working to develop two-way relationships between the school and parents that are based on mutual trust, respect, and a commitment to improving learning outcomes will help

to engage families. Parental engagement should be fully embedded and integrated in your teaching and learning plans to make a real difference.

Early Years educators respect family diversity by learning about cultures represented in the school or in the educational programming and by providing opportunities for learning about different cultural heritages in a respectful, positive way. Educators consider how to build regular and active parent participation into educational programming for young children. This gives parents relevant examples of the learning and development that take place for their children each day. It also helps parents understand why play is so important for young children.

Engaging Families in Play-Based Learning

Play-based learning is an ideal opportunity to invite family engagement and collaboration at the Kindergarten level. You can help ensure that families understand what their children are learning as they go about the important work of play. You may find that Sandra J. Stone's cartoon "A Play Creation" (see Figure 2.1 in Chapter 2) helps to clarify for families (in a humorous way) all the things their children learn about through play in Kindergarten. You may also find that the *CMEC Statement on Play-Based Learning* (see Chapter 2) helps to convey that play-based learning is recommended by education experts.

As discussed in Chapter 4, artifacts made by children and documentation such as Learning Stories help make play-based learning more transparent for families. Keep taking photos of children at play, and link the learning outcomes inherent in the Kindergarten curriculum to what children are doing in the photos to help families make connections. Inviting families to contribute to the learning in the classroom by contributing loose parts from home for Kindergarten collections is a fun way to build the home-school connection. Most families will have items such as buttons, pennies, old keys, and bread tags they can send to school, and they will be pleased to see how their child counts, sorts, and sequences these items in the photos you take.

Talk to parents about how they view the role of play in their child's learning at school and ask for their perspective on how they can enhance their child's learning through developmentally appropriate, play-based interactions at home. Parents may not be familiar with the effective play-based instructional approaches that shape their children's educational experiences, which makes your role even more vital in engaging them as active partners in providing children with appropriate play-based experiences.

Many schools hold a Kindergarten orientation evening in the spring of the year before children begin Kindergarten. In some schools, the principal and teacher use this occasion to speak to families. Other schools use an interactive child-centred approach. As parents and children rotate through a variety of hands-on learning experiences, educators informally talk to parents about what their children are learning through these types of play-based activities and encourage them to play and learn together. You can intentionally create play centres that have the kinds of items families would likely have at home, such as a table where children can sort and count buttons, coins, small pasta, cereal, and so on.

Kindergarten fairs often include play-based learning centres, such as this numeracy and literacy centre, which has magnetic letters and numbers and paperclips for children to count.

Schools may provide parents with a Kindergarten bag filled with learning materials such as crayons, scissors, and books, which they can take home for their children. When a snack is served, parents have the opportunity to talk to one another and to the teachers, the principal, and others from the school, such as the music teacher, Reading Recovery teacher, or librarian.

Your role as a Kindergarten teacher is a highly demanding one, and requires family alliances to ensure optimal learning outcomes for students. The research is clear that "families have a major influence on their children's achievement . . . . When schools, families, and community groups work together to support learning, children tend to do better in school, stay in school longer, and like school more" (Henderson and Mapp 7).

A combined junior/senior Kindergarten in an economically disadvantaged neighbourhood in Manitoba holds a Rhyme Time every Thursday. On that day, parents are encouraged to attend school with their children, and are also welcome to bring their babies and toddlers. A large circle experience with the Kindergarten children, their siblings, and their parents exposes children and families to literacy activities, including songs and fingerplays, which parents may try at home with all their children. Following the circle time, the group has a cooking time when children write out recipes, measure ingredients, and make a snack that is shared with parents and babies. Parents provide additional pairs of hands in the room during this busy learning experience.

Since you are probably the first teacher your students and their families encounter in the school, you have opportunities to engage families as allies in ways that result in the greatest benefits for all partners. The choices you make in seizing these opportunities can have a far-reaching positive impact on a child's educational journey.

Kindergarten drop-off or pickup time may provide opportunities to engage in quick conversations with parents that inform them about their child's transition progress, special events in the classroom or school, or the new learning their child has demonstrated. Remember to frame your conversations with families by focusing first on children's strengths and the rich learning you see in their children as they play. These conversations give you a chance to answer any questions parents might have about their child or to check in on any concerns. Some teachers post their pedagogical documentation, class newsletters, and community notices on a bulletin board right outside the classroom where it is easy for parents to see while they are waiting.

In the following vignette, a Manitoba Kindergarten teacher shares an example of family engagement practices she is implementing successfully with the use of information technology tools.

Framing Strength-Based Conversations with Parents

Frame your conversations with families by focusing first on children's strengths.

- Your child is so smart. Let me tell you what I saw him do today . . .
- Your child is so interested in learning. Today, she was trying to . . .
- Your child is a good friend to others. Today, I watched him . . .
- Your child said something clever today. She said . . .
- Your child asked such a great question today. He asked . . .
- Your child is so good at solving problems. Today, she . . .
- Your child will make you proud. Today, he . . .
- Your child loves you so much. Today, she told me . . .

Vignette: The New Face of Parent Engagement—The Impact of Social Media in Kindergarten

I teach in a small rural school, and each day more than half my students arrive and depart by bus. So, how do I maintain strong communication with parents when I rarely see them face to face? I send home a monthly calendar, I post blogs, and I tweet; but currently, my quickest and easiest tool for disseminating information is Facebook. After posting daily to my private classroom Facebook group for two years, I have found a number of ways to maximize the use of this popular social media site in Kindergarten, while protecting children's privacy, as well as my own.

Initiating Facebook Communication with Parents

I was the first teacher in my school division to use Facebook with parents, so there were some growing pains in getting started. I would recommend getting permission from your school principal, information and communication technology (ICT) consultant, and superintendent, and written consent from parents. I introduced the idea of a classroom Facebook group at my pre-Kindergarten conferences in September, and I explained it in person to each parent/caregiver. I stressed that it would be set up to share information and resources with parents. If anyone had a major concern, Facebook was not the forum for airing it (a phone call, meeting, or private message would be more appropriate). After nearly two years, this approach has worked wonderfully well, and I follow the same procedure at the beginning of each school year.

Using Lists to Avoid Getting Too Personal

Setting up a classroom Facebook group does require me to be Facebook friends with all my Kindergarten parents. This has not posed a problem (I have a fantastic group of parents), as I have simply created a "Kindergarten parents" list or group in Facebook. This allows me to control my privacy settings and make sure parents have access only to the content I want them to see. With each status update and uploaded photograph, I can easily decide whether my Kindergarten parents will see it.

Establishing the Group

The only members of our Kindergarten group are my current parents/caregivers, any student teachers I have in a given year, and my principal. Every September, I remove the previous year's parents from the group, and add the new parents after my pre-Kindergarten conferences.

Deciding What to Post

I use Facebook to post

- daily updates and reminders (e.g., return your library books and/or home reading books, remember we have music today, send back permission forms)
- information regarding what we are learning about (details about lessons and important skills we are practising)
- links to online resources and games that might be of interest to parents
- links to applications we are using on the classroom tablets if parents would like to download them at home

- photos of bulletin-board displays, art projects, work samples, and other documentation
- presentations from parent nights, literacy events, and so on
- our Kindergarten handbook with important information for families, supply lists, and so on
- videos or social stories that the children or I have created for easy home viewing

Occasionally, parents post information about sports teams or children's events in the community.

Creating Facebook Events and Asking Questions

I often use the Events tool to invite parents to conferences, concerts, and Kindergarten graduation. This information gives me an idea of how many guests to expect, and it is right there for parents in their Facebook accounts.

Occasionally, I poll parents on new ideas, such as how they felt about having me purchase all the school supplies and charging them a flat fee in the fall. The feedback was excellent and helped me to decide how to approach obtaining school supplies for the following school year.

Engaging Parents

Updating our Facebook page in real time throughout the day is so quick and easy with my smart phone and tablet, and parents love knowing what is happening in the classroom by checking their Facebook account throughout the day. I also believe that it improves parent-child communication. When parents are picking up their children or visiting with them after school, they are able to ask about specific events from the day. For example, questions such as "What do you think of those new riding cars in your classroom?" or "I hear that you learned how to print teen numbers today. Why don't you show me how to do it?" are going to lead to a much richer discussion and sharing than the age-old question, "How was school today?"

I would highly recommend this form of communication to any classroom teacher. Family engagement is extremely high in my classroom because parents all feel so involved. Parents rarely tell me they didn't know about something. When plans change, last-minute messages are easy to share with parents—and the counter attached to each post lets me know who has seen it and how many have seen it.

Using My Smart Phone in Kindergarten

I make use of my smart phone a great deal in the classroom to enhance parent communication. All my parent contact information is saved in my phone, so it is a snap to text, call, and have video conferences with parents when the occasion calls for it, such as for a child's separation anxiety and illness (e.g., "How sick are you really? If Mom sees you, she can decide.").

At pre-Kindergarten meetings with families and their children, I take the opportunity to enter all their contact information and sync it with my tablet and smart phone. Regardless of the situation, I always have one of my devices with me and can contact parents easily.

I regularly photograph children engaged in learning, and text the pictures to parents. Parents are always thrilled to see what their children have been doing at school, and it can be really motivating for children to know that when they

have completed a task, a record of it can be sent to their mom or dad. Once I have taken a picture on my phone or tablet, I can easily upload it to the student's online portfolio.

All parents have my cell phone number and know they can text me at any time, and I will respond. (Some of my colleagues don't agree with this, but I have had no problems. I have found that by responding immediately to parents' questions, small concerns don't have the chance to turn into huge problems.)

So, why not consider getting face-to-face with the most important people in your students' lives? As long as you operate within the parameters of your school division's policy, obtain informed consent from parents, and exercise good judgment when using social media, you have nothing ahead of you except more involved, engaged parents!

Reflection: Your Engagement Journey with Families

When you use your understanding of child development, developmentally appropriate play-based instructional strategies, and the integral role of families as equal partners in education, you are well-placed as a champion for family engagement. The following are some questions to reflect on as you continue your engagement journey with families:

- What am I currently doing effectively to interact and co-learn with families based on truly hearing what their hopes and dreams are for their child's learning success?
- Am I aware of my own potential biases, stereotypes, and assumptions that need to be addressed if I am to be effective in my collaborative relationship with families?
- Am I reaching out to parents even before their child enters Kindergarten in ways they view as welcoming and respectful and with a focus on collaboratively ensuring their child's successful transition into school?
- Do I collaborate with families in planning educational goals and enlist them in taking actions that result in optimal learning outcomes for their child?
- Have I shared with families the "big ideas" their child will learn in Kindergarten, the importance of their role regarding their child's regular school attendance, ways to engage their child in playful learning, effective strategies for reading with the child, and so on?
- When communicating with families about their child's academic or other needs/challenges, do I frame the conversation around strengths before addressing concerns?
- Am I seeking ways to connect with families who need interactions that more effectively engage them in their child's education?
- Am I seeking ways to communicate and involve parents who do not speak English or who are unfamiliar with our education system?
- Does the classroom environment appropriately reflect the culture and home lives of my students, and do my practices value differing parenting styles and family circumstances?
- Whose needs are met through my interactions with families (i.e., Do the interactions tend toward "doing to" [involvement] or "doing with" [engagement]?)?

Alignment Eases Transitions

Research shows that "a high-quality, well-aligned educational system for young children that bridges the divide between early childhood programs and K–12 schools can improve outcomes for children, engage and support families, strengthen the local workforce and economy and enhance their cities' quality of life" (National League of Cities 1). Alignment of standards, curricula, teaching practices, and assessments are key parts of systems that value children's social competence as well as academic progress, scaffold on children's prior experiences, coordinate parental engagement efforts, strengthen community connections, and link families to the supports and opportunities that help them and their children to thrive.

Partnerships help develop a healthy school environment and a stronger community. Bronfenbrenner's ecological systems theory (discussed in Chapter 3) reminds us to consider children's societal context, focusing on the interrelationship of family, school, and community (refer to Figure 10.2). We understand that young children who live in strong families and strong communities are more likely to have healthy development and to be successful at school.

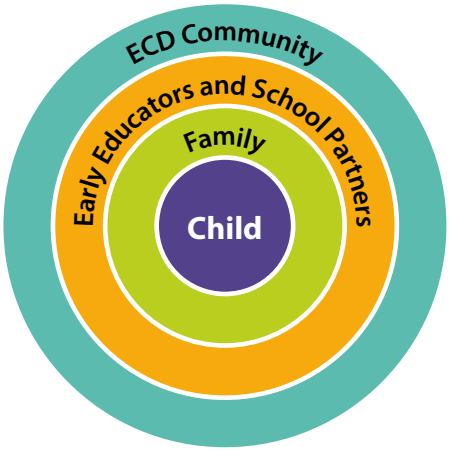


Figure 10.2: Layers of the Environment in Which Young Children Develop and Learn

Communities can provide support to parents in strengthening home-related elements of their children's development. Parents may appreciate obtaining factual information about their children's development in the areas of nutrition, prenatal and postnatal care, oral language, literacy at home, and other topics; however, check with parents to see what they themselves want to know more about. Remember, parents are the experts about their own children, and have much to share with you, too.

Think about the strengths, needs, and unique characteristics of your community and your school's fit within it. Collaborate with other significant partners in the early childhood development (ECD) community to help achieve the smoothest of transitions to school for each child. Welcome and include families and community partners into your classroom and into the school. See yourself as an active partner in each child's education. Act as a champion for children within your larger community. Reach out to new partners, purposefully seek to engage children's families, actively collaborate, and build strong relationships. Seek to smooth transitions for children and families and create continuity between environments and people. These actions will help foster optimal learning conditions for children, not only in Kindergarten, but also as they transition into Grade 1.

When early learning programs are intentionally coordinated, young children experience consistency in education. Clear partnership processes to align experiences

for young children and their families create stronger relationships between ECEs across different settings, and a sense of community and greater success for all. Helping children and their families prepare to transition between early learning and child care and the formal school system requires coordination and, ideally, an alignment between what children are doing before they enter school with what is expected of them once they are in school. It is important that you get to know ECEs in centres close to your school and become aware of the curriculum they provide.

Licensed Early Learning and Child Care

In licensed early learning and child care (ELCC) centres, the approach to curriculum refers to how learning opportunities are organized for children. The ELCC curriculum is based on goals for children's social, emotional, physical, and cognitive development, while understanding and responding to the unique abilities, interests, and needs of each child. Diversity and inclusion are incorporated to reflect each child, family, and community.

Components of the Manitoba Early Learning and Child Care curriculum are based on the age and developmental level of the children:

- *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Infant Programs* describes appropriate curriculum for children from three months to two years of age. The infant curriculum is based on positive, responsive interactions and relationships. ECEs use opportunities that arise during caregiving routines and in exploration and play to meet children's individual needs and promote learning and development.
- *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Preschool Centres and Nursery Schools* describes curriculum for children from two to six years of age. The preschool curriculum is based on play, and components include interactions and relationships, environments, and experiences. Children are encouraged to extend their learning by communicating with adults and peers, exploring open-ended materials, and participating in hands-on experiences to promote learning and development.

ECEs have a unique set of skills, qualifications, and experiences. These include a strong foundation in child development, observation, and play-based learning. ECEs understand the importance of developmentally appropriate holistic planning that promotes children's development across all the developmental domains. The licensed ELCC system employs ECEs in full-time centres, nursery schools, and family child care homes, as well as in centres for older children (six to 12 years of age) that operate during out-of-school hours.

Licensed ELCC facilities in Manitoba are required to develop a curriculum statement to describe their infant, preschool, and nursery school programs to parents and community members. A clear curriculum statement helps ELCC staff provide intentional and purposeful curriculum to create meaningful and relevant learning opportunities for children. It also strengthens accountability to children, parents, management, and the public to provide play-based and developmentally appropriate curriculum.

The curriculum implementation practices are based on knowledge and beliefs about how children learn and develop. For example, children's ability to write begins in infancy, when they are encouraged to explore art materials and practise "writing." With more experience, growth, and development into preschoolers, children are better able to understand symbols and purposefully create lines, patterns, shapes, and pictures. Once children reach Kindergarten, they can use their prior knowledge and experience with print to begin to express themselves using the written word.

Wherever possible, alignment between Manitoba's ELCC curriculum and Kindergarten curriculum should encourage continuity of vision, beliefs, values, and principles related to early learning and pedagogy from preschool to Kindergarten. Pedagogical alignment means that early learning standards, curricula, and assessments must be aligned as children transition into school. Moreover, pedagogical alignment refers to educators' views of the nature of childhood and the importance of play to children's learning, their approach to teaching (structured and didactic or emergent and responsive) and what they teach (focusing on subjects or developmental domains), and the values they hold about parents, community, partnerships, and more (Kagan et al. 10–11).

Developmentally appropriate early learning is child-centred, reflects family and community contexts, and encourages meaningful partnerships that include each child, the child's family, and your early childhood allies. When children's experiences in ELCC and school are intentionally coordinated, young children experience consistency in education. You intentionally create opportunities to scaffold on learning based on children's prior knowledge and experiences to build a sense of continuity from preschool to Kindergarten and beyond.

Community-Based Parent-Child Programs

Within Manitoba, 26 parent-child coalitions support grassroots, community-driven programs for early childhood development. These community-based parent-child coalitions bring together parents, ECEs, teachers, health care professionals, and other community service providers to plan and work collaboratively in supporting the healthy development of children from birth to six years of age. Parent-child coalitions support existing community programs for families with young children and develop new initiatives that reflect each community's diversity and strengths. Coalition partners encourage a broad range of services and learning experiences for children from birth to six years of age and their families, based on the priorities of positive parenting, nutrition and physical health, literacy and learning, and community capacity-building. Participation at a leadership level by community educators is critical for the success of community-based family support initiatives.

Many communities offer family resource programs, often located in schools, with supports and opportunities for parents and children to participate in early learning experiences together. These types of play-based early learning programs help to foster social, emotional, physical, and cognitive development of children. Trusting, respectful relationships are developed when professionals spend time interacting with young children and their families and learning more about their strengths and

challenges. Children learn respect, empathy, and self-regulation when they relate to other children, families, and other adults. These interactions also help family members to deepen their own understanding of their children's development and to value learning through play. Relationships that support children, families, and educators from various systems are built with frequent, positive interactions based on trust and open communication.

Parent-child coalitions provide an opportunity to work with the community to promote the importance of the early years and to share Early Development Instrument (EDI) results, based on the work you do to assess children's development during the Kindergarten year. Children's strengths and vulnerabilities when they begin school are influenced by what has happened prior to school entry, and the family and community factors that shape children's early childhood development. As discussed in Chapter 2, EDI results are a reflection of the strengths and needs of children's communities. Community-level EDI reports are developed for the parent-child coalitions in Manitoba. For these community reports, the EDI results are grouped by where children live—by rural municipality or Winnipeg neighbourhood. Through their efforts to link with the broader community and to engage community partners in working for enhanced family support programs, parent-child coalitions use the EDI reports to address the strengths and needs of individual communities. Ready parents and families, ready communities and schools, and ready governments and leaders, working together, promote the best possible outcomes for Manitoba's children.

Collaboration between home, Kindergarten, child care, and other early learning services in a supportive community is essential for all children to experience success. Continuity occurs when the new environment builds on the children's previous experiences. For example, when your Kindergarten classroom environment provides familiar play materials, the children develop feelings of security, consistency, and continuity of experience. Similarly, when your Kindergarten offers information to families and encourages parent engagement, there is continuity of experience for parents. Self-esteem, confidence, and emotional development are strengthened when children and families feel accepted and supported.

Vignette: Pedagogical Partners

ABC School is a Kindergarten to Grade 5 school located in a culturally diverse neighbourhood of Winnipeg. The building also houses the **ABC Family Centre**, which offers programs such as Preschool Storytime and Drop-in Play and Learn for families and their young children. The centre is jointly funded by the school division and Healthy Child Manitoba and is staffed by an ECE and coordinated by a divisional teacher team leader.

Co-located in the school are two licensed early learning and child care programs. One is the **123 Daycare**, a full-time child care facility, licensed for 40 preschoolers and infants, with a long history of serving the community. The **Before-and-After School Child Care Centres, Inc.** is a larger multi-site child care agency that provides quality care and education for children between the ages of 5 and 12 years throughout the school division. Their **ABC location** is licensed for 45 children during the school year and 55 children throughout the summer program.

At the beginning of a project to form a pedagogical partnership, the four partners (the school, the family centre, and the two child care centres) recognized that although they often served the same families and children, they really knew very little about one another. Staff did not spend much time in direct interaction with one another. Their conversations were typically brief but polite, and they rarely crossed into each other's spaces even though they were all under the same roof.

Nine meetings were held over 18 months as project participants dug deeply into personal and organizational values and beliefs. The goal that emerged was to develop an overarching pedagogical statement that reflected their shared values and common approaches to working with young children and families across their separate programs, all located under the roof of the **ABC School**. While relationships had always been cordial, the chance to reflect and really explore those values and beliefs and how they played out in their respective classrooms was exciting and deeply meaningful for the participants. Partners articulated the desire that children and their families would experience continuity rather than feeling disconnected as they moved from one program to another, and that all would benefit from the common approach to teaching and learning in the building despite their separate governance and funding structures.

Educators used a series of questions to guide their many conversations. They asked whether they had a common, shared set of agreed-upon core values and beliefs about

- Kindergarten
- the way young children learn
- their role as teachers
- their role as early educators
- the nature of learning and teaching
- their view of the child
- the type of children's program they offer
- their work with families
- their relationships with each other
- their roles in the community

Shared Vision Statement*

We believe that children, being rich in potential, are capable, competent, unique people with their own feelings, opinions, and experiences. Children are at the centre of all teaching and meaningful learning opportunities, which grow out of responsive, purposeful engagement of educators, children, and families. Families provide their children with their first and most important learning experiences and are an integral part of their children's successes at home and in the programs in our school. On behalf of children and families, we want to create environments that support connectedness, empowerment, and the honouring of diversity. As early childhood educators, we respect individuality in children, provide rich learning environments, promote development through play, and build healthy relationships. Our role in the community is to support and advocate for the growth of children and families in partnership with other community members. We commit to mutually respectful and collaborative relationships with each other, families, and community partners.

* Used with permission of the project partners.

By the end of the journey, in addition to learning more about all they had in common, the partners had crafted a shared pedagogical vision statement, which was presented to families at board meetings, at parent council meetings, and in one-to-one conversations. The statement now appears in each partner's informational materials and websites and is meant to guide smooth transitions from one program to the next. Children and their families experience continuity, rather than feeling disconnected, and all benefit from the common approach to teaching and learning in this building.

The pedagogical partnership described here is unique in that it includes four separate partners: the school, particularly its Kindergarten; the family centre, serving young families who usually have a parent at home; and both a licensed preschool centre and a licensed school-age centre. It really reflects the continuum of services required by today's families. A key goal of the partnership is to provide and maintain consistency in the program delivery serving young children through pedagogical alignment, which takes the ideals of partnership beyond simple co-location and sharing of physical space to the sharing of the minds and passions of the people who work in the building. The chance to meet regularly away from the demands of work, "break bread"' together, visit one another's spaces, and talk and talk and talk meant that many misperceptions were corrected, resources shared, commonalities identified, commitments deepened, stories exchanged, plans generated, and professionalism stretched and supported. As a result, a pedagogical community of practice is now operating in the school building.

Partnerships with School and Divisional Staff

As discussed in Chapter 2, when Kindergarten teachers actively engage with allied professionals, children are the beneficiaries and their development is better supported. Collaborative partnerships—with your school librarian, the Grade 1 teacher, educational assistants, your school division's psychologist or speech-language pathologist, or other external clinicians and service providers—will enrich your teaching and deepen the supports available to you and the children you teach. These partnerships require your active promotion of collaborative goal setting among parents, clinicians, and teachers. A collaborative-consultative model is workable only when there is a true sharing of information between the various professionals and you. As noted in Chapter 4, the framework on which the collaboration rests may be defined within a specific child's individual education plan (IEP). In some cases, however, your collaborative work supports many students simultaneously.

In one Kindergarten classroom, the teacher wondered how to increase children's use of positional words, such as *over, under, beside, right, left, inside, outside*, and so on. Students' use of language should be growing quickly during their Kindergarten year, and knowledge of positional words such as these increases their ability both to follow and give directions and to use language precisely. The Kindergarten teacher shared this learning goal with the music and physical education/health education teachers, who intentionally inserted this kind of language into their own work with the Kindergarten students. Practice with these words across different settings seemed to be the right approach for this group of children, who began to apply their new understanding of "position" no matter which setting they were in.

The Transdisciplinary Approach

Effective teams require interpersonal communication and collaboration skills. In a transdisciplinary approach, the decision of who does what is not based on the particular credential one has achieved. Instead, various professionals rely on each other to build on the range of strengths found in each child and family (Howard et al. 34–35).

The *transdisciplinary* approach or model is founded on shared meaning, fosters a coherent and holistic plan for children, and is especially supportive of early intervention efforts. It involves "the sharing of roles across disciplinary boundaries so that communication, interaction, and cooperation are maximized among team members . . . , with the family considered to be a key member of the team" (King et al. 211–212). Team members teach each other through continuous staff development, joint team functioning, and role release and role substitution.

The transdisciplinary approach works well when team members clarify respective expectations and explain discipline-specific concepts other team members may not be familiar with, such as the importance of play to children's learning. With this approach, various professionals interact, learn from each other, and value collaboration and shared experience. There may be a sharing of specific techniques and strategies unique to one discipline or another, a sharing of terminologies and best practices, conversations about observations, theories, and interpretations, and a focus on how best to meet child and family needs through a holistic approach and shared vision. However, some components of teaching and intervention should not be released to another team member. For example, as the Kindergarten teacher, you will retain responsibility for implementation of the Kindergarten curriculum. Some assessment tools may be administered only by professionals trained in their use. Some interventions may be beyond the skills of most team members or may require the involvement of a medical professional. In all cases, team members treat each other with respect.

If you have an educational assistant in your classroom, this assistant may be assigned to support a particular child's inclusion, or to lower child-to-adult ratios overall. Part of your work with your educational assistant will be to share some of your own knowledge about developmentally appropriate practices and play-based learning.

Other clinicians may help you and your educational assistant to develop any student-specific competencies that are required, such as how to expand and model language structures, facilitate a child's use of specific technology or equipment (e.g., a Brailler), and so on. A clinician can be invited to conduct child-specific therapy within a small peer group in the classroom rather than pulling out the child to the resource room, thereby becoming a co-teacher and co-player in the room.

Figure 10.3 conceptualizes how collaboration between a speech-language pathologist and a Kindergarten teacher can help promote children's oral language development through a cycle of observation, reflection, differentiation, and assessment. The listening and speaking competency areas include conversation, grammar, oral stories, phonology, and vocabulary. For more information about listening and speaking competency areas, please see *Listening and Speaking: First Steps into Literacy* (Manitoba Education, Citizenship and Youth). Because the Manitoba English language arts (ELA) curriculum is currently being renewed, this Kindergarten support document makes connections to the practices identified in the new curriculum, as well as to the general learning outcomes (GLOs) and specific learning outcomes (SLOs) identified in *Kindergarten to Grade 4 English Language Arts: Manitoba Curriculum Framework of Outcomes and Grade 3 Standards* (Manitoba Education and Training, 1996). You can access information and processes for reflecting on the new curriculum in the group Reflecting on and Moving Forward with a New English Language Arts Curriculum on the *Manitoba Professional Learning Environment (Maple)* website at <www.mapleforem.ca/>.

The vignette that follows Figure 10.3 tells a story of how transdisciplinary collaboration between a teacher and a clinician was formed to address low language competencies within one Kindergarten classroom.

Based on their seminal 1995 study of vocabulary and language development in very young children, Hart and Risley emphasize the importance of a language-rich environment early in children's lives. They report that by the age of three, children born into low-income families have heard roughly 30 million fewer words than their more affluent peers whose parents were college educated and employed as professionals. These disparities continue to grow over time, and by the time low-income children enter Kindergarten, they may be significantly behind their peers in language development unless they have had a language-rich experience early in life.

Phase	Starting Out Prior to fall term	Getting Acquainted First days/weeks of school	Planning for a Variety of Learners	Learning about Particular Learners	Monitoring Particular Learners	Reflecting on a Classroom of Learners/ Planning for a Variety of Learners
Purpose	Gather formative information to plan/design the Kindergarten learning environment.	Gather formative information to plan/design learning and teaching contexts.	Gather formative information to differentiate instruction.	Work with particular learners to seek a deeper understanding of them to gather more formative information in different contexts at different times.	Clarify earlier observations by augmenting formative information about particular learners.	Begin/revise a class profile (see Appendix I). Plan/design learning and teaching contexts to differentiate learning. Develop/revise specific action plans for particular learners based on observation and formative assessment.
Grouping	Whole class	Whole class	Interest groupings or cooperative groupings	Flexible groupings	Interest groupings or cooperative groupings	Whole class
Focus for Observation	Overview of listening and speaking competency areas	One or two general listening and speaking competency areas and/or ELA GLOs	One or two general listening and speaking competency areas/ELA GLOs or descriptors/ ELA SLOs (targets)	One to three specific descriptors/ELA SLOs (targets)	One to three specific descriptors/ELA SLOs (same as previous targets or new, depending on areas of strengths and challenges)	One or two general listening and speaking competency areas and/or ELA GLOs
Sources of Information Contexts for Learning/Observing	■ wellness fairs ■ classroom visits ■ parent interviews and/or surveys ■ school/divisional orientations ■ open house ■ staggered entry	■ parent drop-off/pick-up ■ classroom routines ■ groups to introduce play centres ■ information sharing with early childhood educators, if applicable	Routines and play centres	Extended or adjusted versions of previous play centres	Return to the contexts in the Planning for a Variety of Learners phase	Opportunities for exploration and play with sound and language in many rich contexts
Collaboration and Planning	Begin to develop or extend a common understanding of listening and speaking competency areas and ELA learning outcomes.	Make or revisit a plan.	■ Grow as a team through team planning and reflections. ■ Collaborate and share in planning, instructing, and observing the classroom groupings. ■ Continue to meet to plan and reflect. Collaborative structures depend on divisional, school, classroom, and student needs.			
	Administrative support					
Team Reflections	*What have we already learned that can help us plan a literacy-rich learning environment/context for this class? What do we see and hear in our class in terms of listening and speaking?*		*How do we meet the needs of a variety of emergent/beginning literacy learners?*	*What are particular learners' strengths, and what learning gaps are emerging?*	*How will we plan next steps to maximize listening and speaking skills and strategies for particular learners?*	*How will we plan and tailor the learning environment to differentiate learning opportunities and ensure the success of all learners?*

Figure 10.3: A Model for Maximizing Listening and Speaking through Collaboration in the Kindergarten Classroom

* Source: Manitoba Education, Citizenship and Youth. *Listening and Speaking: First Steps into Literacy: A Support Document for Kindergarten Teachers and Speech-Language Pathologists.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2008. 29. Available online at <www.edu.gov.mb.ca/k12/cur/ela/list_speak/> (1 Dec. 2014).

Vignette: Maximizing Listening and Speaking through Collaboration in Kindergarten

Staff in a school in northern Manitoba set a goal to be more strategic and intentional in supporting oral language development in the Kindergarten class. As a result, a partnership between the speech-language pathologist and the classroom teacher began with a reflection on important questions sparked by the Manitoba resource *Listening and Speaking: First Steps into Literacy* (Manitoba Education, Citizenship and Youth). Figure 10.3 can be used to support this kind of deep reflection and intentional planning.

Questions for reflective collaboration included the following (as suggested in *Listening and Speaking*, pages 27–28):

- What have we already learned that can help us plan a literacy-rich learning environment/context for this class?
- What do we see and hear in our class in terms of listening and speaking?
- How do we meet the needs of a variety of emergent/beginning literacy learners?
- What are particular learners' strengths, and what learning gaps are emerging?
- How will we plan next steps to maximize listening and speaking skills and strategies for particular learners?
- How will we plan and tailor the learning environment to differentiate learning opportunities and ensure the success of all learners?

The class schedule includes lots of time to talk.

The teacher and clinician team chose to focus on the question *How will we plan to maximize listening and speaking skills and strategies for particular learners?* They considered the classroom's learning environment and made purposeful changes to support language development within a play-based approach.

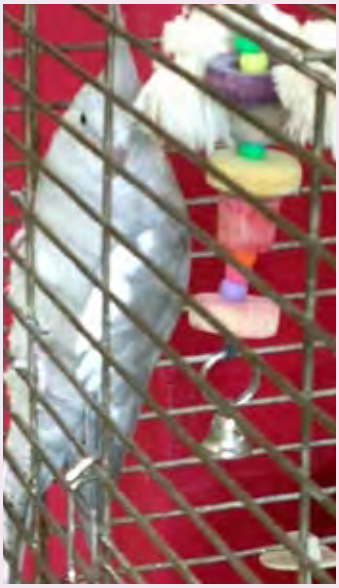
The collaborative partners established a focus by reflecting on observations, classroom-based assessments, and a formal screening. Basic concepts and their related vocabularies became a targeted area. The speech-language pathologist was scheduled into the class for large blocks of time every day in a "push-in" rather than a "pull-out" approach. (In this Kindergarten class, which operates at 0.6 time, the children come to school every Monday, Wednesday, and Friday.) Language development became an integral part of the class schedule, beginning each day with a welcoming "meet and greet" circle time. Children were grouped into flexible small groups, and play centres were redeveloped to address the language needs of the students.

Scheduling accommodations were made to ensure the availability of more adult play partners in the class during this time. This allowed for the creation of small flexible groups of children, with many opportunities to hear language modelled by adults and to participate in many conversations. Displays on the classroom walls supported the basic concepts being targeted, and were helpful reminders for the children and the adults.

The speech-language pathologist and the classroom teacher used every opportunity to talk to the children and to encourage listening and speaking. Children began to use new vocabulary and expanded sentence structures at the dramatic play centre, when using classroom tools, and when having a conversation with the class pet.

(Top L) A chart of recess rules about "Where to Play."
(R) A display of "How to Get Ready to Go Outside."

(Bottom L) Children's dramatic play centre. (R) The class pet.



Both partners reflected on the process of supporting oral language development:

- **Teacher reflections:** "I do lots of daily quick reviews. I find ways to work familiar topics into new conversations. I do lots of modelling. I introduce a topic in the morning and come back to it two or three times a day."
- **Speech-language pathologist reflections:** "Play time became a time for great language expansion, with all the adults in the room participating in the play and offering constant language enrichment to the children."

Together, the teacher and clinician developed a better sense of how to collaborate on early intervention strategies to develop oral language in the classroom, and to provide parents with support to foster oral language development at home.

Collaboration between Teachers and Early Childhood Educators

Collaboration between teachers and ECEs occurs in various ways within school divisions:

- Kindergarten teachers collaborate with ECEs as partners within the Kindergarten classroom.
- ECEs may work with four-year-old children in division-sponsored junior Kindergarten.
- Five-year-olds may spend half the day with their Kindergarten teacher and half the day with an ECE employed by the school division.
- Kindergarten and early learning programs remain under separate administrative structures, but teachers and ECEs make time to share and cooperate.

One teacher shared her experience in the following vignette.

Vignette: Working with an Early Childhood Educator*

My school division has full-day Kindergarten every day in six schools. Along with being given the gift of time with our Kindergarten students, we are also fortunate to have a full-time qualified ECE in each classroom. As a seasoned teacher, I feel privileged to work not only full days with these children, but also alongside an early childhood professional. We work as a team in the classroom.

As a team, we are able to create play spaces that encourage the growth of social and academic skills. With two adults in the room, we are more readily available to model appropriate play, language, and turn taking. We discuss what centres will look like and whether they will have a structured or unstructured set-up. Having two trained adults in the room allows direct instruction to take place, both through unstructured and structured play centres. In my classroom, there are times when both adults work together with the whole class, and other times when we each work with a small group of students. In this scenario, differentiation is not only attainable, but also successful.

The ECE understands the importance of reading to the children and knows there is more to reading than just picking up a book. She is able to have the children make predictions and make connections to the story, and she reads in a way that engages the children in the book.

The gift of having a longer day with these children and the benefit of having two trained professionals in the room enable the children to grow at their own pace and in their time. The curriculum remains as it was, but the children have the time and support they need to internalize what we want them to learn. As we know, children learn best through play, and having experts in the room who understand child development and the importance of play in learning makes this a win-win situation for the children.

* Used with permission of a Kindergarten teacher.

Collaboration with Adults in the Classroom

Whether you have an ECE, an educational assistant, a teacher candidate, a related professional, or a volunteer who spends time in your Kindergarten classroom, communication about your Kindergarten culture (the way things are done in your classroom) is very important for maximizing the benefits of having a second adult in your room. In one Kindergarten classroom, the teacher provides the following tips to other adults who spend time in her classroom.

Tips for Supporting Play*

(for Educational Assistants, Teacher Candidates, and Volunteers)

In this classroom, there are no "number of children" rules in any area or learning centre, but you can help children negotiate space when things get crowded or really loud, or when there is an increase in conflict. Here are some tips for supporting play:

- Engage in play rather than "supervise."
- Help children focus on their plan for play with a question (e.g., "What are you playing?").
- When children enter the space where other children are already at play, assist them in the following ways:
  - Help them join in if they need it (e.g., "They are playing _____ . Who will you be?" or "How can you help?").
  - Help negotiate if the newcomer is not being sensitive to the play that is already in progress. (A newcomer can't just come in and crash through play or begin playing in a way that interferes with the ongoing play.)
  - Help children negotiate materials. Simply saying "share" is not very helpful, as children may not be ready to give up something.
  - Encourage negotiating talk (e.g., "Can I have that when you are finished?" and "I am still using this. I will give it to you when I am done.").
  - If it is really crowded, suggest an alternative (e.g., "There is just not enough room here right now. You may want to come back when there is more space. Where else would you like to play while you wait?").
- Respect children who are engaged in play. Please don't have them stop playing or go play somewhere else unless there is an important reason (e.g., they are playing inappropriately, being very loud even when asked to use a quieter voice). If you have asked them to go somewhere else, help them choose a new place to play and make sure they follow through. Redirect them respectfully (e.g., "You keep on taking Samara's blocks even when she said she still needs them, so you will need to play somewhere else now. Where would you like to go play?").
- Always try to avoid negative messages of what the children can't do (e.g., "Stop . . . ," "Don't . . ."). Instead, help children with what they *can* do (e.g., "Can you think of a way to build that wall so that it doesn't fall down?" "Please play with the doll in this area rather than at the snack table." "That wall is getting really high. If the top blocks fall, they may hit you on the head. Please build carefully so that you do not get hurt.").
- Model the volume and tone of voice you would like the children to use. If we want children to use a quiet and kind voice, we must use a quiet, kind voice.

* Used with permission of a Kindergarten teacher.

Transition Planning

Throughout our lives, each of us will go through many transitions, which may include beginning a new job, marriage, the death of a loved one, or becoming a new parent. All these transitions, even the good ones, can be difficult as we adjust to the new experiences. If you were to reflect on your own significant life transitions, you might think back to your own first days of school. You might recall the first day of school as exciting or pleasant, or you might shiver and shake your head at the unpleasant memory. If you could fast-forward 20 or 30 years from now to ask the children starting Kindergarten with you this year to reflect on their first day(s) of school, what do you think they would say? Clearly, what we as educators of young children do today can make a huge difference in how these future grownups will respond to that question.

Transitions can be thought of as processes. As children grow and develop, they move or transition from one learning environment to another. Often, these transitions involve a process of change that requires learners to adapt and prepare for new experiences.

Transitions refer to changes between different types of activities. In education, we may talk about vertical and horizontal transitions:

- *Vertical transitions* are changes that occur over time (e.g., moving from early learning and child care to Kindergarten).
- *Horizontal transitions* are changes that occur during the same day (e.g., moving from home to Kindergarten to child care to home, and then perhaps out again for swimming lessons or soccer).

Starting Kindergarten is one of the most important moves a child will make. While it is an occasion for new opportunities and challenges, it is often a time of stress when the child and family are encountering new people and unfamiliar places. How you and your community partners handle the transition process lays the foundation and sets the tone for future expectations and experiences.

One of the important recommendations in the early childhood literature is to try to foster continuity between home and school, and between the preschool and school environments. The goal of continuity is to make transitions appropriately challenging and smooth, so children experience change less abruptly and can easily see and understand links between one setting and another.

Moving from Preschool to Kindergarten

Researchers have identified various elements and strategies that can facilitate continuity between preschool settings and Kindergarten. The following five strategies for promoting successful continuity, identified by Kagan (as cited in Hale, Brown, and Amwake 6), all require informed parental consent:

- written transition agreements between early childhood programs and schools, clearly outlining roles and responsibilities

- attention to children's needs, including the transfer of names and records
- planned transition efforts that function year-round
- outreach to parents and training that informs them about early learning and child care options, the importance of play, the expectations of the school system, and available services
  (For example, many schools hold a Kindergarten open house, often in February or March of the year before the child will start Kindergarten, where they share information with parents and encourage registrations. Some schools hold a Kindergarten orientation evening attended by parents and children, with learning stations for children and families and a chance to spend time in the Kindergarten classroom. Child care facilities located in the school or neighbourhood may also set up information booths that evening to ease registration for families who will require out-of-school care.)
- visits by Kindergarten teachers to local early childhood centres, and vice versa, throughout the transition from preschool to Kindergarten

Ideas for facilitating communication between ELCC centres and your Kindergarten include the following:

- Plan joint in-service training and workshops on topics applicable to both settings. If there is a speaker coming to your school for an in-service, consider inviting your colleagues from the other systems to join in.
- Plan cross-program visits and observations to learn more about what the children have been doing this year and how their ELCC centres have structured their days, environments, and learning experiences. Aim toward continuity and try to scaffold on prior successes. Continue to include the child-directed investigations and documentation processes children have experienced in their preschools.
  (For example, four-year-olds attending a child care centre located in a school were ecstatic when their soon-to-be Kindergarten teacher joined them for snack one day in June, and loved the chance to show her around and explain all their favourite things to do.)
- Schedule regular meetings and sharing sessions, as appropriate.
- Encourage communication via telephone, email, or conferences to discuss a particular child (with informed consent of parents).
- Celebrate successes together.
- Organize social situations where staff from both systems can meet.
- Develop written policies and procedures regarding transitions.
- Exchange newsletters, add each other to your email trees, and invite children's ECEs and parents to class parties or open houses. When you are invited to attend these kinds of events hosted by your ECD partners, make the time to attend.

A carefully planned transition provides parents and educators with opportunities to participate as equal partners in the transition process. Cooperation among all the adults involved in the lives of young children and consideration of their needs during transitions helps provide the children and families with positive experiences.

Visiting Next Year's School and Classroom

To avoid discontinuity, confusion, and fear in children, you may already have developed specific activities that facilitate their adjustment. In some Hutterian colony schools with multi-age classrooms, four-year-olds may begin attending Kindergarten class during May and June to become used to attending class each day before they officially begin Kindergarten in September. Elsewhere, teachers may invite small groups of four or five children on successive days in June to the next year's classroom. This process is particularly important for the soon-to-be Kindergarten children, because it may be their first contact with the school environment. The teacher can then speak to the children individually and take them on a tour around the classroom. This is not a time to give any screening tests to the children, as these might only frighten and confuse them.

If the school provides a booklet for Kindergarten children to take home, the visiting children could receive it at this time. While the children are visiting their future Kindergarten classroom, and if they are willing to remain in the classroom on their own, their parents might meet with the principal and the resource teachers. Parents should be encouraged to ask questions and to share information; after all, their children are about to embark on an experience that is of vital concern to them, and everyone wants the year to be happy and fulfilling.

One Kindergarten teacher shared that during the June visits of new Kindergarten children, she takes a digital photo of herself with each child. During the summer, she writes a letter to each incoming child and includes the photo to help the child remember what she looks like. Children are thrilled to receive their own personalized mail from their new teacher, and this simple act helps reinforce what the children learned during their visit and builds their comfort level about school starting at the end of the summer.

Children receive a letter from their teacher during the summer before Kindergarten begins. Used with permission of a Kindergarten teacher.

Another Kindergarten teacher shared a variation of that welcome strategy. At the beginning of August, she mails a welcome letter to each incoming child, accompanied by a Kindergarten handbook for the family and a school supply list. One year, the welcome letter was printed on pink paper and included pink feathers. Parents reported that it was a big hit with their children!

When children visit your classroom, what things are most important to them? Children need to know what is expected of them in the new school and what they can expect in turn. They like to know pragmatic details about what to expect (e.g., Where will I put my jacket? Where is the bathroom? Where do I line up for the bus? Whom will I play with?). Of course, we want children to look forward to the experience with a sense of excitement and anticipation rather than a feeling of fear or anxiety. Some children, especially those with exceptional learning needs, may benefit from the

creation of a customized social story about their new Kindergarten, with photos of key experiences and people at their new school.

Gradual Entrance

"No significant learning occurs without a significant relationship" (Comer, cited in Payne).

Many teachers find they can establish a better relationship with each child if they plan for children's staggered entrance into Kindergarten. Most children feel more comfortable if they can begin their new Kindergarten experience in small groups. If staggered entrance is to take place, children and parents should know well in advance so that the children are not disappointed to find they have to stay home on some days of the first week. Parents may need to arrange for child care on the days that their child will not be attending school.

Helping children and their families prepare for the big move to Kindergarten involves a great deal of planning, as well as careful consideration of the specific needs of children and families within the neighbourhood or community. In addition to the normal changes and adjustments that occur when children begin at a new school, many children and their families have specific needs to be met in transition.

Some school divisions offer a special day to ride the school bus for their junior Kindergarten children who will ride the bus to Kindergarten, so that they become familiar with the bus safety routines and guidelines. Other divisions organize an orientation day during which students who ride the bus will be picked up with their parents at their assigned bus stops.

Planning ahead can help reduce the anxiety and apprehension many children and their families experience during transitions.

Partnerships with the Grade 1 Teacher

Children will undoubtedly face many transitions throughout their school careers, and each transition will have its own associated challenges and excitements. Each new grade has distinct characteristics and unique demands for children and their families, including learning to trust a new teacher. As part of the move to Grade 1, children will likely meet new friends who may have attended other Kindergartens, or they may lose some favourite playmates who register for other schools. You can plan for a seamless transition from Kindergarten into Grade 1 in a deliberate way, understanding that the move from Kindergarten to Grade 1 has the potential to be a very stressful experience for young learners.

The concepts of continuity and alignment (as discussed earlier in this chapter) are important to how smoothly children make the transition to Grade 1 even when the move is only to another classroom down the hall in the same school. What is your own vision for alignment? How close is it to the following one?

> The vision of pre-kindergarten through grade three alignment must begin with the recognition that early learning does not stop at the kindergarten school door—and play is the perfect example of how we must bring back developmentally-appropriate learning

> experiences and carry them well into the third grade—or provide a seamless continuum of learning as children build upon the skills that they learn at an early age. (Connelly 4)

There is still an important place for play in the lives of first graders, and Grade 1 still offers young learners many opportunities for inquiry. Some Grade 1 classrooms may be more traditional and structured than your Kindergarten approach, both in the physical environment and in the types of learning strategies used. But many Grade 1 teachers share your image of the child and use child-centred approaches. Some children will struggle with the expectations to sit at desks rather than moving around the room, or they may find the full day of school tiring, especially during the first few months of the year. Sharing all you know about play-based learning, including this resource document, with Grade 1 allies is an important way to champion the unique learning styles of young students. Regular meetings between teachers to look at ways to align curriculum across the Kindergarten and Grade 1 experience are recommended. Sharing pertinent information about children (with informed parental consent) is a good strategy for supporting individual children.

Kindergarten and Grade 1 teachers can intentionally plan for smooth transitions by organizing visits to the Grade 1 classroom, helping children to develop friendships during the year through a Kindergarten–Grade 1 buddy system, and offering family support that helps to allay parents' own concerns about the move. You can invite Grade 1 teachers to join the Kindergarten children for snack several times during the year, to see a play the children are showcasing, or to view their display of books they have written that year or their portfolios of all they have learned. Visits to the Grade 1 classroom before the end of Kindergarten will help children to keep a concrete picture in mind during the summer break of what comes next.

Even if you have not been going outdoors for recess throughout the year, begin heading outside in the spring so that the Kindergarten children become used to the bells, and the activity on the playground with children from all grades.

One rural school holds a yearly Kindergarten–Grade 1 switch day in the spring. Kindergarten students attend Grade 1 to experience their new environment first-hand for one day. In return, the Grade 1 students go back to Kindergarten where they reflect on and celebrate how much they have learned since they left Kindergarten one year ago. What a powerful experience for both sets of young learners!

As children gain familiarity with the Grade 1 teacher(s) in your school and with the physical space of the Grade 1 classroom, their anxiety should lessen and their comfort and excitement will grow. All they have learned during their time with you in Kindergarten, and the work you have done to help engage families in their children's learning, will help support smooth transitions for your Kindergarten children as they move into Grade 1.

A Letter from a Reading Recovery Colleague

Reading Recovery

Reading Recovery is a short-term intervention for Grade 1 students who have difficulty with early reading and writing. Specially trained teachers work individually with students in daily 30-minute lessons lasting 12 to 20 weeks. After a full series of lessons, about 75% of these students reach grade-level standard. Many Manitoba school divisions use Reading Recovery as an early literacy intervention.

Dear Colleague,

As a new school year approaches, please allow me to share some of the lessons I've learned from my experiences in Reading Recovery.

Believe all children can learn. Realize that they just learn at different paces. With this belief comes the understanding that we must pay particular attention to the different paths children follow to common outcomes.

Hone your powers of observation. Know your children well. Teach purposefully to build upon what they already know. Think about the power implicit in the use of a child's own name as a springboard for instruction. Marie Clay's book *An Observation Survey of Early Literacy Achievement* is a tool you may find beneficial in this pursuit.

Understand the role oral language plays in the development of reading and writing. Invest time in conversations with English as an additional language learners, as well as reticent and reluctant speakers. Provide daily opportunities for all children to enhance and extend their oral language through talking, reading, and writing in both structured and unstructured settings. Think about how oral language development both benefits from and supports literacy instruction.

Read to and with all children every day. Understand the role that shared and repeated readings of stories, poems, and chants should play in the development of oral language, concepts about print, and phonemic awareness. Provide daily opportunities for children to share and retell familiar stories through purposeful play. Be strong-minded in your belief that children don't need to know all letters and their sounds before they begin to read and write. See Marie Clay's book *The Puzzling Code.*

Understand the powerful connections to be made between reading and writing. Provide daily opportunities for children to write in both guided and unstructured settings. Think about the power of embedding letter and word study within the meaningful context of a writers' workshop. What children learn in writing, they can apply in reading and vice versa! See Mary Clay's books *How Very Young Children Explore Writing* and *What Changes in Writing Can I See?*

Endeavour always to balance your approach to literacy instruction: demonstrate clearly and provide opportunities for guided practice before encouraging children to "give it a go" in less structured settings.

Think about how much more likely our children are to succeed when we, as teachers, provide meaningful contexts through which to arrange for and celebrate success! Let's talk.

A Reading Recovery Teacher

Reflection: Continuity for Children

Reflect on questions such as the following:

- How do you think children feel when they move from their early childhood education program into Kindergarten or from home into Kindergarten?
- What kinds of stressors do you observe among children as they enter school? What do you think creates that stress?
- What do you think would help create a smoother transition for children? What types of activities/strategies would be most helpful?
- How can you intentionally work toward continuity of experiences for children in your Kindergarten class?

Summary

This final chapter of *A Time for Learning, A Time for Joy* provided an ecological perspective of the young learners in your class and of your important relationships with their families, communities, and partners, both within and external to your school. Your role as a champion for young children puts you in the forefront of community building, a vitally important outcome for the Kindergarten year.

"We live in a world in which we need to share responsibility. It's easy to say 'It's not my child, not my community, not my world, not my problem.' Then there are those who see the need and respond. I consider those people my heroes" (Fred Rogers).

Continue Your Learning

For National Family Week resources and ideas, see:

Canadian Association of Family Resource Programs (FRP Canada). Home Page. <www.frp.ca/> (25 Nov. 2014).

For more information about parent-child coalitions, and to find out how to become involved, see:

Healthy Child Manitoba. *Parent Child Coalitions.* <www.gov.mb.ca/healthychild/parentchild/index.html> (28 Nov. 2014).

For more information about family engagement, see:

Ferlazzo, Larry, and Lorie Hammond. *Building Parent Engagement in Schools*. Santa Barbara, CA: Linworth Publishing, 2009.

Henderson, Anne T., Karen L. Mapp, Vivian R. Johnson, and Don Davies. *Beyond the Bake Sale: The Essential Guide to Family-School Partnerships*. New York, NY: The New York Press, 2007.

National Association for the Education of Young Children (NAEYC). *About the Engaging Diverse Families Project.* <www.naeyc.org/familyengagement/about> (1 Dec. 2014).
NAEYC's Engaging Diverse Families (EDF) Project addressed the question "How do early childhood education programs meet the challenge of engaging families in the child's early learning and development?" Visit the NAEYC website for information and resources that resulted from the research project.

For Manitoba's Early Learning and Child Care curriculum, see:

Manitoba Early Learning and Child Care. *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Infant Programs.* Winnipeg, MB: Manitoba Early Learning and Child Care, June 2011. Available online at <www.gov.mb.ca/fs/childcare/pubs/early_returns_infant_curriculum.pdf> (19 Sept. 2014).

———. *Early Returns: Manitoba's Early Learning and Child Care Curriculum Framework for Preschool Centres and Nursery Schools.* Winnipeg, MB: Manitoba Early Learning and Child Care, June 2011. Available online at <www.gov.mb.ca/fs/childcare/early_returns.html> (19 Sept. 2014).

For more information about the development of children's language, see:

Manitoba Education, Citizenship and Youth. *Listening and Speaking: First Steps into Literacy: A Support Document for Kindergarten Teachers and Speech-Language Pathologists.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2008. Available online at <www.edu.gov.mb.ca/k12/cur/ela/list_speak/> (1 Dec. 2014).

For more information about your work with educational assistants, see:

Manitoba Education. *Educational Assistants in Manitoba Schools.* Winnipeg, MB: Manitoba Education, 2009. Available online at <www.edu.gov.mb.ca/k12/docs/support/ed_assistants/> (3 Dec. 2013).

To read more about parental involvement with EAL families, see:

Manitoba Education. *Manitoba Kindergarten to Grade 12 Curriculum Framework for English as an Additional Language (EAL) and Literacy, Academics, and Language (LAL) Programming, June 2011 Draft.* Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/cur/eal/framework/index.html> (7 July 2014).

For more information about educating children from refugee backgrounds, see:

Manitoba Education. *Life After War: Education as a Healing Process for Refugee and War-Affected Children*. Winnipeg, MB: Manitoba Education, 2012. Available online at <www.edu.gov.mb.ca/k12/docs/support/law/> (1 Dec. 2014).

For more information about children's reading and writing, see:

Clay, Marie, M. *How Very Young Children Explore Writing.* Portsmouth, NH: Heinemann Publishing, 2010.

———. *An Observation Survey of Early Literacy Achievement.* 3rd ed. Portsmouth, NH: Heinemann, 2013.

———. *The Puzzling Code.* Portsmouth, NH: Heinemann, 2010.

———. *What Changes in Writing Can I See?* Portsmouth, NH: Heinemann, 2010.

To read about the early childhood transition protocol, see:

Healthy Child Manitoba. *Protocol for Early Childhood Transition to School for Children with Additional Support Needs.* Winnipeg, MB: Healthy Child Manitoba, in press. Will be available online at <www.gov.mb.ca/healthychild/publications/protocol_cwsn.pdf>.

For more information about play-based learning, see:

Council of Ministers of Education, Canada. *CMEC Statement on Play-Based Learning.* 19 July 2012. <www.cmec.ca/Publications/Lists/Publications/Attachments/282/play-based-learning_statement_EN.pdf> (26 Sept. 2012).

Afterword

Afterword

Manitoba Education and Advanced Learning developed *A Time for Learning, A Time for Joy: A Resource for Kindergarten Teachers* to support you in your important role as play-based Kindergarten teachers in Manitoba. As Albert Einstein advised, it is the supreme art of the teacher to awaken joy in creative expression and knowledge. The department gratefully acknowledges the important contribution you make each day to helping our youngest students get off to a great start as they experience wonder, joy, and success during their Kindergarten year. Thank you for all you do!

> "Nothing without joy."
>
> Loris Malaguzzi

This closing message is one of encouragement as you commit to implementing a play-based approach to Kindergarten in your classroom. With your support and intentional teaching, your students will grow like the flowers in Friedrich Froebel's vision of Kindergarten. Rich contexts for learning will encourage children to wonder, pose their own questions, make their own discoveries, construct their own knowledge, communicate their findings, build positive attitudes toward school and lifelong learning, and enjoy friendships with fellow discoverers along their way.

A child is a joyful and enthusiastic reader.

We hope the ideas found within this support document will help you to

> create or find small pockets of hope where children can experience the joy, vitality, richness, pleasure and challenges of unfettered play in their . . . schools and schoolyards. These children will then take with them the seed of productivity, support, nurturance and courage throughout their lives. (Bos and Chapman 158)

And finally, in the poem "If . . . ," which first appeared in the introduction to *The Hundred Languages of Children* exhibit at the Dayton Art Institute, poet and curator Pamela Houk wrote:

If . . .*

By Pamela Houk

If I can
Ask my own questions,
Try out my ideas,
Experience what's around me,
Share what I find;

If I have
Plenty of time for
My special place,
A nourishing space,
Things to transform;

If you'll be
My patient friend,
Trusted guide,
Fellow investigator,
Partner in learning;

Then I will
Explore the world,
Discover my voice,
And tell you what I know
In a hundred languages.

* Source: Edwards, Carolyn, Lella Gandini, and George Forman, eds. *The Hundred Languages of Children: The Reggio Emilia Approach—Advanced Reflections.* 2nd ed. Westport, CT: Ablex Publishing Corporation, 1998. 293. Reproduced with permission.

Appendices

Appendix A: Early Development Instrument (EDI)*

Schools and communities working together for Manitoba's children

What is the EDI?

The EDI

- is a questionnaire completed by Kindergarten teachers that measures Kindergarten children's *readiness for school* across several areas of child development
- measures how a *community* of Kindergarten children is doing compared to children in other communities or provinces
- is never used to assess individual children or to evaluate teachers, schools, or individual programs

Defining *School Readiness*

"The term itself, 'school readiness' is really a shortcut, or a proxy, for a holistic indicator for developmental health, one that covers the main developmental domains, at the same time reflecting outcomes and milestones achieved during the first five years of life within the context of early experiences" (Janus 14).

What is the history of the EDI in Manitoba?

Manitoba began collecting EDI data in 2002–2003, and census-level data has been collected since 2005–2006. Some independent and/or faith-based schools have voluntarily participated in the EDI since its census-level expansion. In partnership with the Manitoba First Nations Education Resource Centre (MFNERC), Healthy Child Manitoba has collected EDI data in some First Nations communities in the province.

Why is the EDI important?

- We need to know how Manitoba's children are doing, so that we can best support healthy child development.
- The EDI is used to help *communities* identify their *strengths* and *needs* so they can best support early childhood development.

How is the EDI collected?

- Once every two years, Kindergarten teachers complete an EDI questionnaire concerning each child in their classroom. This occurs in early spring.
- If parents wish to withdraw their child from the EDI collection, they may do so.

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* Source: Healthy Child Manitoba. *Early Development Instrument (EDI).* <www.gov.mb.ca/healthychild/edi/index.html> (17 Mar. 2015). Used with permission.

What information does the EDI provide?

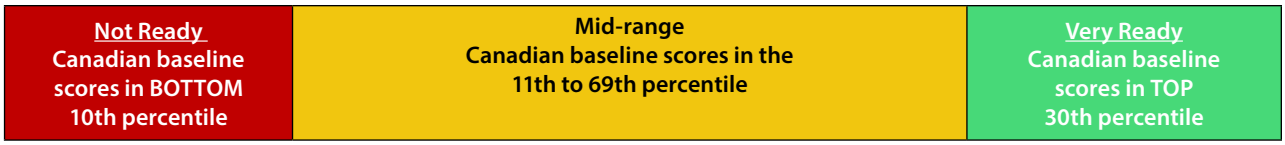
The EDI shows how children are doing in the five areas (domains) of *child development*:

- physical health and well-being
- social competence
- emotional maturity
- language and thinking skills
- communication skills and general knowledge

EDI results provide information about areas of strength and need among a group of children. On the strengths side of EDI results, children who score in the top 30th percentile on at least one domain are referred to as being "Very Ready" for school. Being "Not Ready" is designated as scoring in the bottom 10th percentile on at least one domain of the EDI.

The five EDI domains are further divided into 16 sub-domains that reflect various skills and abilities of children. The sub-domain results signify a marker for developmental expectations. Sub-domain results identify the proportion of children who have met few/none of these developmental expectations (or, children who are considered *vulnerable).*

Illustration: Represents the Canadian baseline sample "ruler" used to establish Manitoba's *Not Ready* and *Very Ready* results:



What is done with the EDI results?

The EDI results are shared with

- *schools and school divisions*, including school boards, school administrators, teachers, and resource workers
- *communities*, including parents, parent-child coalitions, early childhood educators, community members, service providers, and policy makers

How is EDI data used in Manitoba?

The EDI data is used to

- measure progress in early childhood development (ECD)
- understand progress and identify priorities in ECD
- inform community actions regarding ECD

- inform public policy and investments (Manitoba school divisions are supported in their efforts to address the ECD needs of preschool children through the Early Childhood Development Initiative [ECDI] of Manitoba Education and Advanced Learning. Since 2011–2012, additional funding has been provided to help school divisions work with communities on early childhood focused initiatives through the Early Development Instrument Supplement. Some of the funds are targeted to schools with a higher proportion of children in particular need, as determined by EDI data.)
- evaluate population-level effects of ECD investments

The EDI alone cannot tell the whole story of childhood development. Other data (e.g., asset mapping, school performance, parent surveys, and community-level census data) must be used in combination with the EDI.

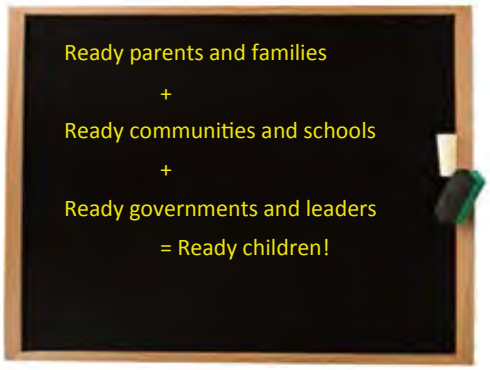
Are our children ready?
Are we ready for our children?

Research tells us that children who begin school ready to learn will have future successes in learning throughout their lives.

So how do we help children get this best start to school?

The answer is what societies have known for generations:

It takes a village to raise a child.



Continue Your Learning

To learn more about the EDI, please see:

Brownell, Marni, Mariette Chartier, Rob Santos, Okechekwu Ekuma, Wendy Au, Joykrishna Sarkar, Leonard MacWilliam, Elaine Burland, Ina Koseva, and Wendy Guenette. *How Are Manitoba's Children Doing?* Winnipeg, MB: Manitoba Centre for Health Policy, October 2012. Available online at <http://mchp-appserv.cpe.umanitoba.ca/reference/mb_kids_report_WEB.pdf> and at <http://mchp-appserv.cpe.umanitoba.ca/deliverablesList.html> (27 Oct. 2014).

Healthy Child Manitoba. *Early Development Instrument (EDI).* <www.gov.mb.ca/healthychild/edi/index.html> (27 Oct. 2014).

———. *Starting Early, Starting Strong: The Early Development Instrument (EDI) Report 2012–2013: Manitoba Provincial Report.* Winnipeg, MB: Healthy Child Manitoba, n.d. Available online at <www.gov.mb.ca/healthychild/edi/edi_1213/edireport_mb_2012_13.pdf> (14 Apr. 2015).

Janus, Magdalena. "Early Development Instrument: An Indicator of Developmental Health at School Entry." *Monograph from the Proceedings of the International Conference on Measuring Early Child Development, Vaudreuil Quebec, April, 2006.* Hamilton, ON: Offord Centre for Child Studies, McMaster University, n.d. Available online at <www.offordcentre.com/readiness/files/PUB.10.2006_Janus.pdf> (15 Apr. 2015).

Manitoba Education and Advanced Learning. *Early Childhood Development Initiative (ECDI).* <www.edu.gov.mb.ca/k12/docs/support/ecdi/index.html> (27 Oct. 2014).

Offord Centre for Child Studies. *Desired School Readiness Outcomes for Students.* 21 May 2009. <www.offordcentre.com/readiness/pubs/2009_05_21_EDI_Subdomains_Handout_EN.pdf> (27 Oct. 2014).

Santos, Rob, Marni Brownell, Okechukwu Ekuma, Teresa Mayer, and Ruth-Ann Soodeen. *The Early Development Instrument (EDI) in Manitoba: Linking Socioeconomic Adversity and Biological Vulnerability at Birth to Children's Outcomes at Age 5.* Winnipeg, MB: Manitoba Centre for Health Policy, May 2012. Available online at <http://mchp-appserv.cpe.umanitoba.ca/reference/MCHP_EDI_Report_WEB.pdf> and at <http://mchp-appserv.cpe.umanitoba.ca/deliverablesList.html> (27 Oct. 2014).

Shaw, Souradet. *Early Development Matters for Manitoba's Children.* A summary of the report *The Early Development Instrument (EDI) in Manitoba: Linking Socioeconomic Adversity and Biological Vulnerability at Birth to Children's Outcomes at Age 5.* Winnipeg, MB: Manitoba Centre for Health Policy, May 2012. Available online at <http://mchp-appserv.cpe.umanitoba.ca/reference/MCHP-EDI_summary_final_WEB.pdf> and at <http://mchp-appserv.cpe.umanitoba.ca/deliverablesList.html> (27 Oct. 2014).

Appendix B: Language Prompts for Movement Patterns to Form Letters*

Teaching suggestions—As you describe the path of movement, stretch your voice to coordinate with the construction of the form.

Example: (h) dow . . . n, up and over
(n) down, up and over

Although the path of movement is the same with both letters, "down" is stretched for the letter *h* to indicate a longer stroke.

A slant down, slant down, across
B down, up around, around
C over, around and open
D down, up, around
E down, across, across, across
F down, across, across
G over, around, across
H down, down, across
I down, across, across
J down, curve
K down, slant in, slant out
L down, across
M down, slant down, slant up, down
N down, slant down, up
O over, around, close
P down, up, around
Q over, around, close, slant out
R down, up, around, slant out
S over, around, curve
T down, across
U down, curve up
V slant down, slant up
W slant down, slant up, slant down, slant up
X slant down, slant across
Y slant down, slant up, down
Z across, slant down, across

a over, around and down
b dow . . . n, up and around
c over, around and open
d over, around, u . . . p and down
e across, over, around and open
f over, dow . . . n, across
g over, around, dow . . . n and curve
h dow . . . n, up and over
i down, dot
j down, curve, dot
k dow . . . n, slant in, slant out
l dow . . . n
m down, up, over, up, over
n down, up, over
o over, around, close
p dow . . . n, up, around
q over, around, down
r down, up, curve
s over, around and curve
t down, across
u down, curve up, down
v slant down, slant up
w slant down, slant up, slant down, slant up
x slant down, slant across
y slant down, slant dow . . . n
z across, slant down, across

* Source: From *Shaping Literate Minds* by Linda J. Dorn and Carla Soffos, copyright © 2001, reproduced with permission of Stenhouse Publishers. www.stenhouse.com

Appendix C: Kindergarten Play Observation Notepad

Learning Strengths	**Challenge Areas** (areas for improvement or enrichment)
Next Steps (for feedback and goal setting)	**Portfolio Items**

Appendix D: A Running Record of _____

Child's Name _____

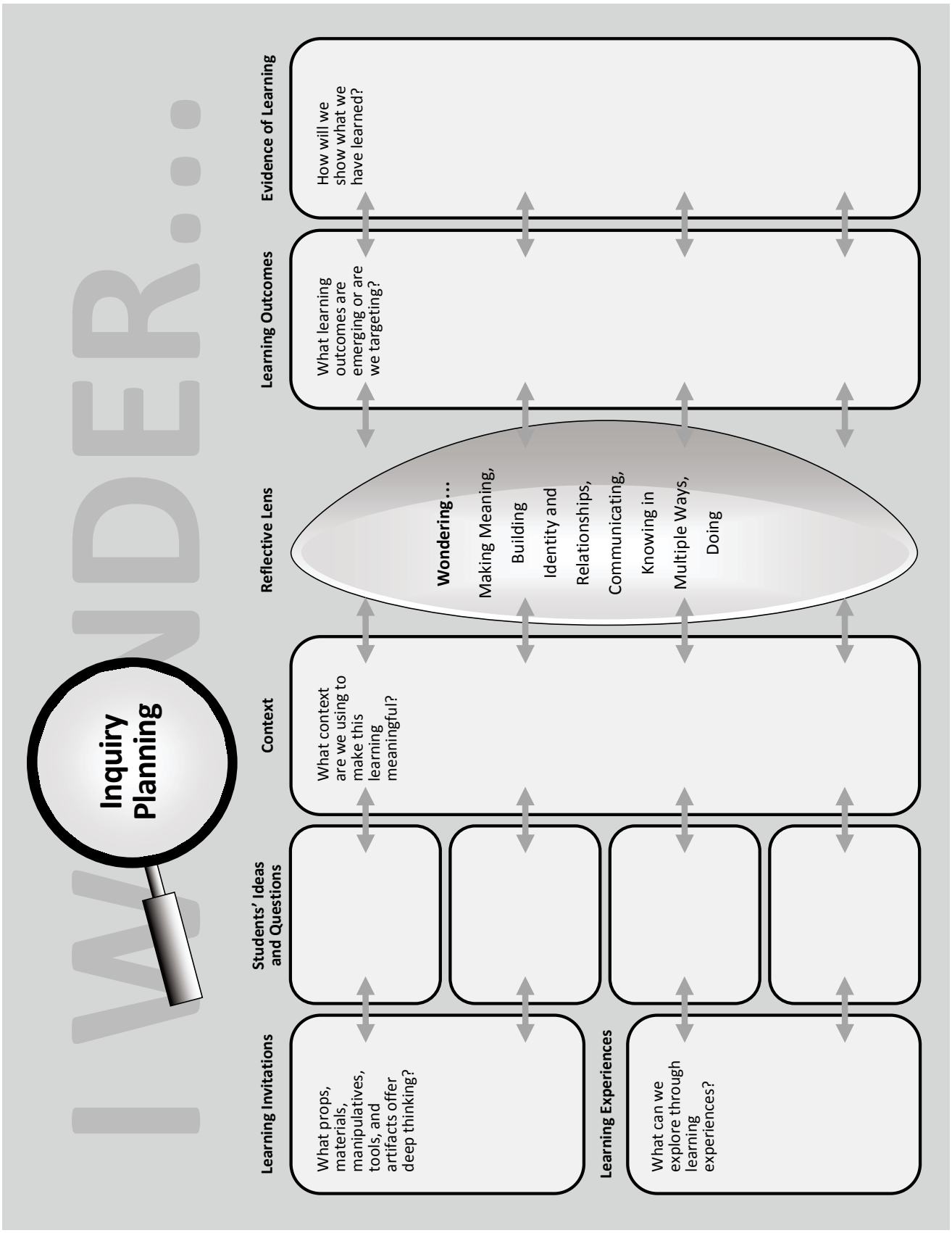
Observer _____ Date of Observation _____

Duration of Observation _____ Location _____

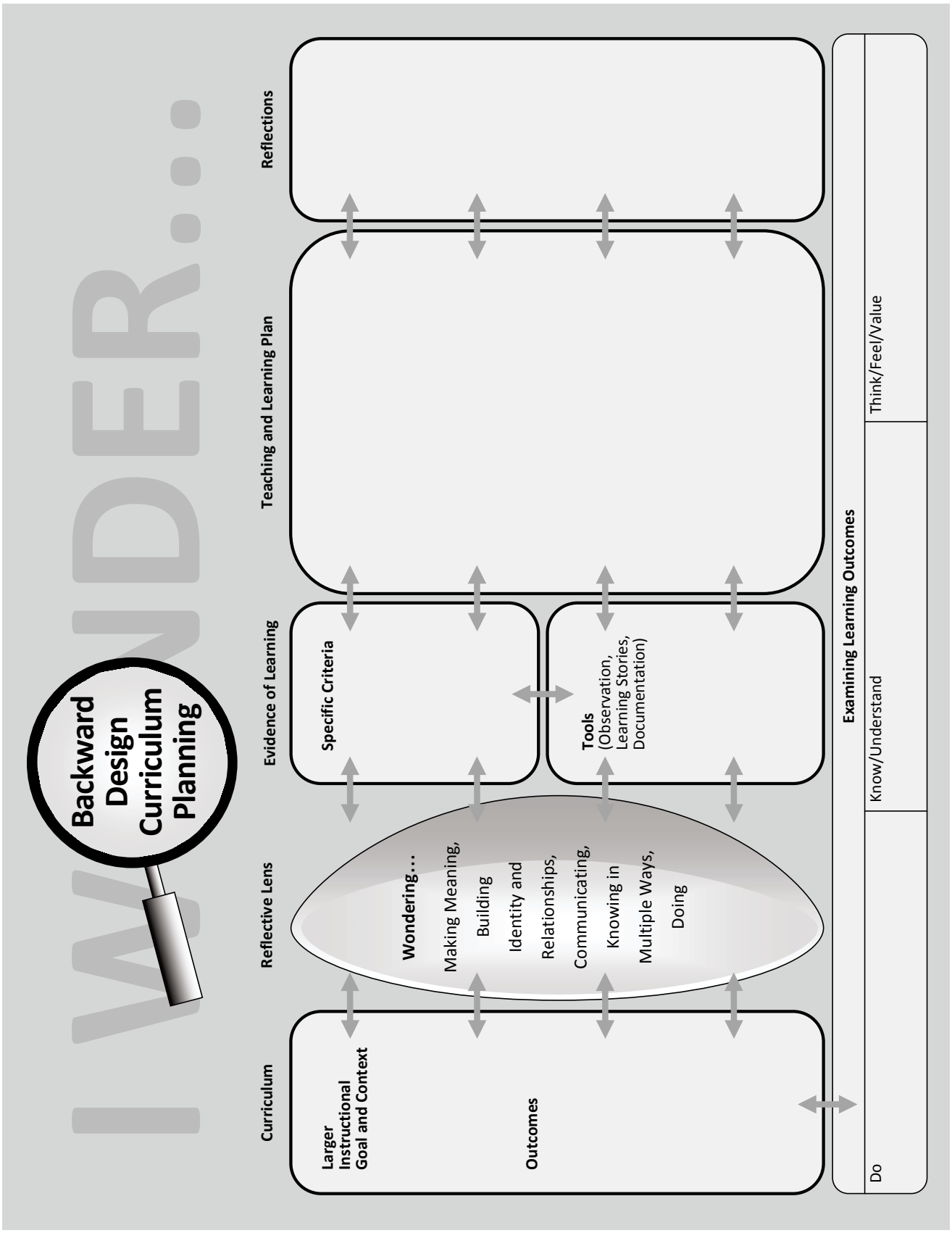
Context _____

Time (5-minute intervals)	Observation Notes	Comments/Reflections/ Interpretations

Appendix E: Inquiry Planning



Appendix F: Backward Design Curriculum Planning



Appendix G: Learning Story*

Observations at (name school) _____

Observations of (name play centre) _____ Date _____

Capture **details** of what you see and hear.

What do you see? (Who, what, when, . . .)	What do you hear? What are the children saying? (Add some direct quotes.)
What learning outcomes are developing/ developed?	What materials did you add to meet the learning outcomes?
How can you further enrich learning at the centre?	

* Used with permission of a Kindergarten teacher.

Appendix H: Student Tracking Sheet

English Language Arts Practices

Students use language for exploration and design.

Date(s)

Possible Contexts

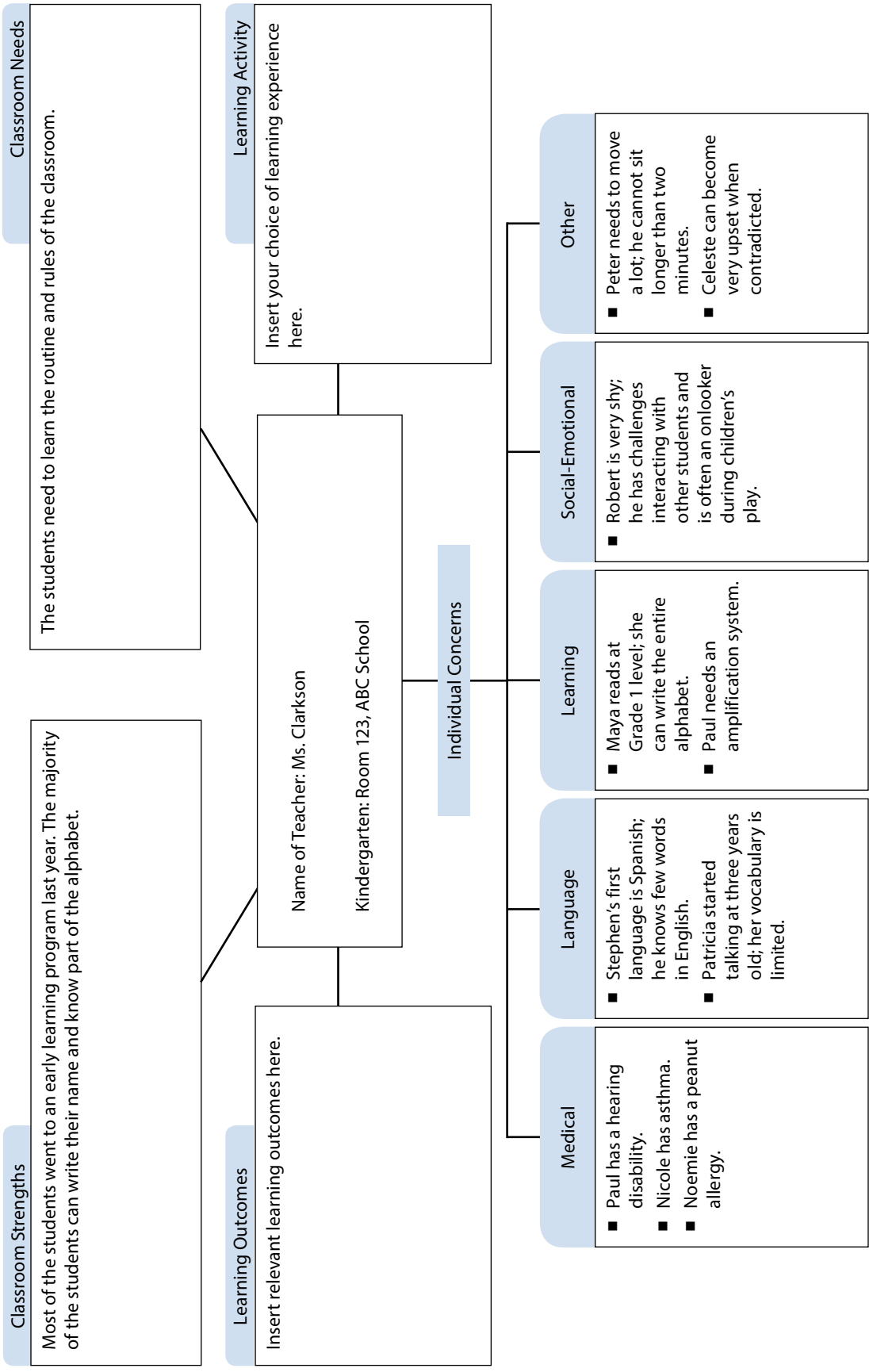
- **Writing Centre:** Children write with a range of materials and paper sizes.
- **Journals:** Children draw and write regularly in their journals.
- **Circle Time:** Children participate in shared and interactive reading.
- **Dramatic Play Centre:** Children make grocery lists or notes, write appointments, write prescriptions, take orders, and so on, as part of their play.
- **Visual Arts Centre:** Children sculpt, paint, draw, and write to represent their ideas. They compose with a scribe.

Level of Development

Not Yet Demonstrated (**NY**), Developing (**D**), Met (**M**)

Names of Children				

Appendix I: Class Profile Recording Form (Sample)



Appendix J: St. James-Assiniboia School Division—Kindergarten Report Card*

ST. JAMES-ASSINIBOIA SCHOOL DIVISION **KINDERGARTEN REPORT CARD 2012-13**

School:		**Student:**	
Address:		**MET #:**	
		Grade:	
Phone:		**Homeroom Teacher:**	
Fax:		**Days Absent:**	**Times Late:**
Principal:		**Term:**	
		IEP: ☐	**EAL:** ☐

Our Division's Vision...

St. James-Assiniboia School Division will be a leading and innovative learning community that will enable all students to believe they can succeed in an ever-changing world.

This report describes your child's progress in relation to the curriculum. The report contains information about:

- *What your child is able to do*
- *Areas requiring further attention or development*
- *Next steps*

Kindergarten is a time to spark children's imaginations, develop a love of learning and build their confidence as learners. Young children actively explore and learn about their world through play.

Social Emotional Development

Literacy Development

Numeracy Development

* Source: St. James-Assiniboia School Division—Kindergarten Report Card. Reproduced with permission.

Creative Expression and Artistic Development
Physical Development
Awareness of Self and the Environment

Next year, your child will be in Grade _____ Room _____

_____

Principal

This statement would only appear on the Term 3 report card

ST. JAMES-ASSINIBOIA SCHOOL DIVISION **KINDERGARTEN REPORT CARD**

SUGGESTIONS FOR CATEGORIES

1. **Social and Emotional Development**

   - **Considerate and respectful of others and the environment**
   - **Accepts learning challenges**
   - **Demonstrates active listening behaviour**
   - **Finds ways to resolve conflicts and solve problems**
   - **Works and plays cooperatively with others**
   - **Works independently when necessary**
   - **Demonstrates independence**
   - **Makes choices and carries out plans**
   - **Expresses thoughts and feelings orally**
   - **Shares with others**

2. **Literacy Development**

   - **Communicates effectively by listening and speaking**
   - **Follows directions and responds appropriately to questions**
   - **Contributes to discussions and lessons**
   - **Understands a variety of early literacy concepts (concepts about print, rhyme, patterns, retelling, letter and sound knowledge)**
   - **Shows an interest in writing and attempts to write**
   - **Responds to reading and viewing in a variety of ways, such as discussions, drawing, drama and other mediums**

3. **Numeracy Development**

   - **Communicates effectively by listening and speaking**
   - **Follows directions and responds appropriately to questions**
   - **Contributes to discussions and lessons**
   - **Shows an interest through participation in a variety of mathematical experiences**
   - **Attempts to apply numeracy knowledge and language within classroom situations**

4. **Creative Expression and Artistic Development**

   - **Expresses enthusiasm and appreciation for the arts**
   - **Expresses self through the arts**
   - **Responds to the arts in creative and imaginative ways**

5. **Physical Development**

   - **Demonstrates large muscle control**
   - **Demonstrate small muscle control (such as with a pencil, scissors, small manipulatives)**
   - **Participates in a variety of physical movement experiences**
   - **Considers the safety of self and others**

6. **Awareness of Self and Environment**

   - **Demonstrates interest in learning about the world around herself/himself**
   - **Thinks and talks about their world**
   - **Demonstrates interest in the community and his/her place in it**
   - **Demonstrates curiosity about the world of science**
   - **Understands simple scientific concepts**
   - **Values and respects diversity and the contributions people make to the community**

<<<FOR TEACHER USE ONLY>>>

Appendix K:

Evergreen School Division
Junior Kindergarten
Progress and Celebration Report*

Student Name: _____

School: _____ **Year:** _____

In Junior Kindergarten, your child had opportunities to explore, play and learn alongside other children his/her age. This report offers a glimpse into how this looked for your child this year.

In Junior Kindergarten, I saw your child learning naturally through exploring and questioning the environment and materials. Here are some examples where your child was . . .

a) **curiously exploring his/her interests:**

b) **exploring literacy and numeracy concepts and skills through a variety of materials:**

c) **learning alone, with a partner, or in a small group, tasks that required a reasonable amount of attention to achieve:**

In closing . . .

Junior Kindergarten Instructor's Signature: _____

Principal's Signature: _____

_____

* Source: Evergreen School Division—Junior Kindergarten Progress and Celebration Report. Reproduced with permission.

Appendix L: Resources Supporting Inclusion

Healthy Child Manitoba. *Protocol for Early Childhood Transition to School for Children with Additional Support Needs.* Winnipeg, MB: Healthy Child Manitoba, in press. Will be available online at <www.gov.mb.ca/healthychild/publications/protocol_cwsn.pdf>. Manitoba Education and Advanced Learning is requesting school divisions and preschool agency personnel to use this protocol as they begin the information sharing and collaborative planning for the transition of children with exceptional learning needs into the school system.

———. *Writing an Inclusion Policy: A Guide for Child Care Centres and Homes.* Winnipeg, MB: Healthy Child Manitoba, n.d. Available on the Manitoba Family Services website at <www.gov.mb.ca/fs/childcare/pubs/writing_inclusion_policy_aug_2009_en.pdf> (9 Oct. 2014).
This guide helps licensed early learning and child care centres and licensed family child care providers to develop an inclusion policy. Inclusion means children of all abilities have equal access to and participate meaningfully in child care programs. Kindergarten teachers may appreciate the reflective nature of the guide, which helps early educators to use their inclusion policy in their day-to-day work with children and families.

Manitoba Education. *Student-Specific Planning: A Handbook for Developing and Implementing Individual Education Plans (IEPs).* Winnipeg, MB: Manitoba Education, 2010. Available online at <www.edu.gov.mb.ca/k12/specedu/iep/> (9 Oct. 2014).
This practical resource provides student support teams with a foundational student-specific planning process to address the wide range of exceptional learning needs of students throughout their school careers.

———. *Towards Inclusion: Supporting Positive Behaviour in Manitoba Classrooms.* Winnipeg, MB: Manitoba Education, 2011. Available online at <www.edu.gov.mb.ca/k12/specedu/behaviour/> (9 Oct. 2014).
This document provides schools with information on universal approaches, proactive interventions and strategies, and evidence-based practices when working with students who exhibit challenging behaviours.

Manitoba Education and Advanced Learning. "Manitoba Services for Students Who Are Deaf and Hard of Hearing." *Student Services/Special Education.* <www.edu.gov.mb.ca/k12/specedu/dhh/index.html> (9 Oct. 2014).
A continuum of educational placements is available for Manitoba students who are Deaf and hard of hearing, including placements in neighbourhood schools, cluster schools, and the Manitoba School for the Deaf.

———. "Services for Students Who Are Blind or Visually Impaired." *Student Services/Special Education.* <www.edu.gov.mb.ca/k12/specedu/blind/index.html> (9 Oct. 2014).
Supports and services include direct teaching, consultation for school teams, professional learning opportunities, and resources to help Manitoba families and schools support students who are blind or visually impaired from Kindergarten through Grade 12.

———. *Supporting Inclusive Schools: A Handbook for Resource Teachers in Manitoba Schools.* Winnipeg, MB: Manitoba Education and Advanced Learning, 2014. Available online at <www.edu.gov.mb.ca/k12/specedu/res_teacher/> (8 Oct. 2014).
This support document is intended for resource teachers and other educators working in an inclusive school environment to address the diverse needs of all students from Kindergarten to Grade 12. It assists resource teachers in supporting appropriate educational programming in Manitoba schools.

Manitoba Education, Citizenship and Youth. *Educators' Resource Guide: Supporting Students Who Are Deaf and/or Hard of Hearing.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2009. *Available online at* <www.edu.gov.mb.ca/k12/docs/support/dhh_resource/index.html> (9 Oct. 2014).
This guide provides basic information to support educational programming and to help ensure successful school experiences for students who are Deaf and/or hard of hearing.

———. *Supporting Inclusive Schools: A Handbook for Developing and Implementing Programming for Students with Autism Spectrum Disorder.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2005. Available online at <www.edu.gov.mb.ca/k12/specedu/aut/index.html> (9 Oct. 2014).
This handbook is intended to be a planning and programming resource for school teams who support students with autism spectrum disorder (ASD).

———. *Working Together: A Handbook for Parents of Children with Special Needs in School.* Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2004. Available online at <www.edu.gov.mb.ca/k12/specedu/parent/handbook.html> (9 Oct. 2014).
This handbook highlights the importance of the diverse and changing learning needs of students with special needs, and offers support and encouragement to parents and families of students with special needs. The document describes some of the services and activities that might be used to meet individual student needs at school.

Manitoba Education, Training and Youth. *Towards Inclusion: From Challenges to Possibilities: Planning for Behaviour.* Winnipeg, MB: Manitoba Education, Training and Youth, 2001. Available online at <www.edu.gov.mb.ca/k12/specedu/beh/index.htm> (9 Oct. 2014).
This planning resource provides support for student services administrators, principals, classroom teachers, resource teachers, school counsellors, clinicians, and other community professionals who assist schools in developing proactive and reactive approaches to behaviour.

———. *Towards Inclusion*: *Tapping Hidden Strengths: Planning for Students Who Are Alcohol-Affected*. Winnipeg, MB: Manitoba Education, Training and Youth, 2001. Available online at <www.edu.gov.mb.ca/k12/specedu/fas/index.html> (9 Oct. 2014).
This planning resource is designed to assist educators in meeting the needs of students who are alcohol-affected.

Appendix M: The Principles of Universal Design

Principles*	Examples*	Classroom Examples**
1. Equitable Use The design is useful and marketable to people with diverse abilities.	■ Power doors with sensors at entrances that are convenient for all users ■ Integrated, dispersed, and adaptable seating in assembly areas such as sports arenas and theatres	■ Various seating options are available to all children. ■ Any child is allowed to hold a fidget toy during circle time.
2. Flexibility in Use The design accommodates a wide range of individual preferences and abilities.	■ Scissors designed for right- or left-handed users ■ An automated teller machine (ATM) that has visual, tactile, and audible feedback, a tapered card opening, and a palm rest	■ Children can choose to use a computer drawing application or pastels, crayons, markers, tempera paint, glitter, and glue to make their self-portraits. ■ Many types of puzzles, including those with pegs, are available to children with less refined fine motor control.

3. Simple and Intuitive Use
Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
	■ A moving sidewalk or escalator in a public space
	■ An instruction manual with drawings and no text
		■ Signage is easy to understand.
		  ■ The boys' and girls' washroom doors are easily recognized.
		  ■ A stop sign posted on the door reminds children not to go out in the hallway without their teacher.

4. Perceptible Information
The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
	■ Tactile, visual, and audible cues and instructions on a thermostat
	■ Redundant cueing (e.g., voice communications and signage) in airports, train stations, and subway cars
		■ To help young children predict what learning experience may come next, use multiple means of representation.
		  ■ Share the daily schedule through charts using photographs and words and through individualized social stories.
		  ■ Learning centres have charts that provide three-step visual cues outlining cleanup procedures.
		  ■ Key directions are repeated in an EAL child's home language.

(continued)

* Source: Copyright © 1997 NC State University, The Center for Universal Design (1997). *The Principles of Universal Design, Version 2.0*. Raleigh, NC: North Carolina State University. Compiled by Bettye Rose Connell, Mike Jones, Ron Mace, Jim Mueller, Abir Mullick, Elaine Ostroff, Jon Sanford, Ed Steinfeld, Molly Story, and Gregg Vanderheiden.

** Classroom examples: Developed by Manitoba Education and Advanced Learning.
The Principles of Universal Design were conceived and developed by The Center for Universal Design at North Carolina State University. Use or application of the Principles in any form by an individual or organization is separate and distinct from the Principles and does not constitute or imply acceptance or endorsement by The Center for Universal Design of the use or application.

Principles	Examples	Classroom Examples
5. Tolerance for Error The design minimizes hazards and the adverse consequences of accidental or unintended actions.	■ A double-cut car key easily inserted into a recessed keyhole in either of two ways ■ An "undo" feature in computer software that allows the user to correct mistakes without penalty	■ Developmentally appropriate software used to support children's learning has an "undo" feature. ■ Storybooks created by children have their pages laminated to help children turn the pages. ■ Toys are selected for their durability and use by many children.
6. Low Physical Effort The design can be used efficiently and comfortably and with a minimum of fatigue.	■ Lever or loop handles on doors and faucets ■ Touch lamps operated without a switch	■ Play centres are organized for independent use by children. ■ Materials are displayed to show what choices are available and where to return the materials after their use. ■ All playground areas are accessible.
7. Size and Space for Approach and Use Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.	■ Controls on the front and clear floor space around appliances, mailboxes, dumpsters, and other elements ■ Wide gates at subway stations that accommodate all users	■ The physical layout of the Kindergarten classroom allows children to move around freely. ■ The classroom has space for assistive devices, as required. ■ The teacher is mindful of whether all children have a clear line of sight to see the teacher and any materials displayed.

Appendix N: Strategy for Solving Conflicts*

When conflicts arise, try the following steps.

Strategy for Solving Conflicts

Strategy	Practice
Approach quickly and calmly to stop hurtful or unsafe behaviour right away.	Stay nearby so children know that you are ready to offer help and support.
Acknowledge each child's feelings with a simple description.	"You seem angry."
Gather information from each child involved.	"Let's talk about what happened. Janelle, you tell me first and then it will be Luke's turn to talk."
Identify and state the problem to the children.	"You both want to sit in the same spot at the table."
Brainstorm solutions with the children.	"What ideas do you have to solve this problem? What else can you do?"
Allow children to develop a solution and use it.	"What idea do you choose?"
Follow up by checking back and offering assistance if needed.	"How is your idea working?"

Place this poster in a visible location for the use of other adults in your classroom.

* Source: Manitoba Early Learning and Child Care. "Strategy for Solving Conflict." *Best Practices for Guiding Children's Behaviour.* Winnipeg, MB: Manitoba Early Learning and Child Care, n.d. Poster. Available online at <www.gov.mb.ca/fs/childcare/pubs/behaviourguidancestragies4-poster.pdf> (18 Dec. 2013). Used with permission.

Appendix O: Sample Schedules

Sample Half-Day Schedule

Time*	Activity	Considerations
12:30 p.m.	Arrival, check-in, meeting time	Songs, read-alouds, going over calendar and the plan for the day
12:50	Play time	Child-directed free play and choice of learning (play) centres, project work and inquiries, teacher-led games (children eat snack at the snack table whenever they are hungry)
2:00	Tidy up	
2:05	Independent reading time/ shared book time	Many five-year-olds like to look at books with friends. Reading is a social activity for young children, so many children do not engage in silent reading on their own. Book time is inclusive of all the typical reading behaviours of young children, ranging from flipping through some pages in a book to reading text on a page, to looking at a book with a friend.
2:15	Circle time	Poetry, stories and discussion, reflection, planning for tomorrow
2:30	Outdoor play	In this classroom, the teacher is responsible for meeting physical education/health education goals and uses outdoor time for this purpose.
3:00	Dismissal	Going home time or pickup by early childhood educators

(continued)

* Timing is approximate, allowing the teacher to respond to children and their activities at various points along the way.

Sample Full-Day Schedule

Time*	Activity	Considerations
8:40 a.m.	Student entry	
8:50	Opening exercises	
8:55–9:10	Sign-in and discovery bins	Word work, fine motor tasks, numeracy work, science explorations
9:10–9:30	Morning meeting	Dance/movement, provocations, review of inquiries, review of personal bests
9:30–10:10	Thinking and learning time	Play-based learning, inquiry-based learning, assessments and documentation, self-regulated snack
10:10–10:25	Recess	
10:25–11:00	Thinking and learning time	Library: Day 1 Music: Day 6 Story, literacy mini-lesson, play-based learning, inquiry-based learning, assessments and documentation
11:00–11:40	Various	Gym: Days 1 to 4 Music: Day 5 Thinking and learning time: Day 6
11:40–12:45	Lunch and outdoor time Student entry	
12:45–12:55	Music listening/independent or shared book time	
12:55–1:05	Daily math challenge/printing time	
1:05–1:20	Read-alouds, shared reading and relaxation, literacy mini-lesson	
1:20–2:10	Thinking and learning time	Play-based learning, inquiry-based learning, assessments and documentation, self-regulated snack
2:10–2:25	Recess	
2:25–3:10	Thinking and learning time	Play-based learning, inquiry-based learning, assessments and documentation, self-regulated snack
3:10–3:35	Class meeting	Share orally: best learning moments, discovering and wonderings, blogging, Instagram “photo of the day”
3:40	Dismissal	Going home time or pickup by early childhood educators

* Timing is approximate, allowing the teacher to respond to children and their activities at various points along the way.

Appendix P: Simple Recipes for Children

Tsaibesa's Bannock*

Here's what you will need:

- 1 L (4 cups) all-purpose flour
- 25 mL (2 tablespoons) baking powder
- 5 mL (1 teaspoon) sugar
- 2 mL (½ teaspoon) salt
- 2 mL (½ teaspoon) bacon fat or lard
- 500 mL (2 cups) water or milk

Here's what you have to do:

In a large bowl, mix flour, baking powder, sugar, and salt.

With the help of an adult, in a medium cast-iron frying pan, melt the fat and add the water or milk. Pour the [fat and] water or milk into the flour mixture and mix thoroughly with a fork. If the dough is too dry, add more water.

Then turn the dough out onto a floured . . . counter. Knead it for at least 3 minutes until it feels firm and the fat is evenly blended. Transfer the dough to the frying pan and pat it out to about 2 cm (¾") thickness. Stab it all over with a fork.

With the help of an adult, bake the bannock at 180 degrees Celsius (*350 degrees Fahrenheit*) for 45 minutes to an hour, until it's golden brown.

. . . Spread with butter or strawberry jam and eat it warm.

Notes

- You can substitute whole wheat for white flour.
- You may wish to use oil as an alternative to fat or lard. Be aware that some religions forbid the use of bacon fat/lard.
- You will need the following utensils: large bowl, measuring cup, fork, measuring spoons, and cast-iron frying pan.
- Talk with the children about how the four dry ingredients all look similar. All are white powders. You can taste a tiny bit of each and talk about how they all taste different.
- You may wish to pat the dough to about 1 cm thickness.
- You may want to make an alphabet letter with the dough.
- Use margarine or your favourite jam or topping.

* Source: Indian and Northern Affairs Canada. *Chances Are, It's Aboriginal! A Conversation about Aboriginal Foods*. Ottawa, ON: Minister of Public Works and Government Services Canada, 1998. 4. Available on the Aboriginal Affairs and Northern Development Canada website at <https://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/ach_lr_ks_rrds_fd_1302786193164_eng.pdf> (19 Mar. 2015).

Purple Cow Shakes

What you need:

- 1 can frozen grape juice, thawed
- 2 cups vanilla ice cream, softened
- 1 cup milk

Utensils: Jar with lid, or bowl and hand mixer

What to do:

Put all the ingredients into a jar or bowl. Shake or mix until the mixture is a purple cow shake.

Cheese Crispies

What you need (per child):

- 15 mL flour (1 tablespoon)
- 15 mL grated cheese (1 tablespoon)
- 5 mL soft margarine (1 teaspoon)

Utensils: Bowl, cheese grater, cookie sheet, measuring cup, measuring spoons, parchment paper

What to do:

Combine all ingredients in a bowl, and mix well, first in a bowl, and then with fingers. Roll dough into a ball, and then flatten into the chosen shape. Place on cookie sheet. Bake 10 to 12 minutes in a 190°C (375°F) oven. If you use parchment paper on the cookie sheet, cleanup is easier, and you can print each child's name beside "their" crispie.

Basic Biscuits

Each recipe makes 12 biscuits. Double or triple the recipe, as required.

What you need:

- 500 mL flour
- 20 mL baking powder **A**
- 2 mL salt

Each child is responsible for A, B, or C.

- 125 mL shortening **B**
- 175 mL milk **C**

Utensils: Bowl, pastry blender or plastic knives, fork, parchment paper, cheese grater (optional), measuring cups, measuring spoons, baking sheets or muffin tins

What to do:

1. Mix A together.
2. Cut in B. Use a pastry blender or two plastic knives, going in opposite directions.
3. Add C. Blend with fork until evenly moistened.
4. Put dough on floured surface. Form it into a ball. Knead 20 times (approximately). Roll to 1.5 cm thickness. Cut into shapes.
5. Bake approximately 10 minutes at 220°C (425°F) on ungreased baking sheets.

Biscuit Variations

Cheese Biscuits

- Add 175 mL grated cheese after cutting in shortening.

Raisin Biscuits

- Add to A:
  - 60 mL sugar
  - 175 mL raisins
  - Optional: Add 5 mL cinnamon to A.

Fruit Biscuits

- Add to A:
  - 30 mL sugar
  - 5 mL cinnamon
  - 175 mL mixed fruit peel, cut into small pieces

Quick Cinnamon Buns

After rolling out dough, butter it lavishly, cover with brown sugar, sprinkle with cinnamon, and dot with raisins. (Optional: Add chopped nuts or coconut.) Roll into a log. Cut slices 2 cm thick. Lay on greased baking sheets or in muffin tins. Bake 12 to 15 minutes at 200°C (400°F).

Molasses Bran Muffins

Do not over-mix the batter; it should be lumpy. These muffins can also be made into coffee cakes. This recipe makes 1 dozen large muffins.

What you need:

A
- 250 mL whole bran cereal
- 125 mL milk
- 125 mL molasses

B
- 250 mL flour
- 7 mL baking powder
- 5 mL baking soda
- 5 mL salt

C
- 125 mL raisins or chopped dates (or figs)
- 80 mL salad oil
- 1 egg

Each child is responsible for A, B, or C.

Utensils: Bowl, measuring cups, measuring spoons, muffin tins, parchment paper or other muffin liners

What to do:

1. Combine A. Let stand until bran is soft.
2. Combine B. Mix.
3. Add C to A. Beat well.
4. Add A and C to B. Stir until moist.
5. Grease muffin cups (or use paper liners). Fill ⅔ full.
6. Bake 20 to 25 minutes at 200°C (400°F).

Playdough and Oobleck/Cornstarch Magic

Here are two recipes for classroom standards, homemade playdough and oobleck, or cornstarch magic. While the recipes use food items, they are not meant for eating, although they are non-toxic.

Playdough

What you need:

- 2 ½ cups flour plus more for dusting the table during the kneading process
- ½ cup salt
- 2 tablespoons cooking oil
- 1 tablespoon alum (a preservative used in pickles—look for it in the spice aisle at a grocery store) (optional)
- 1½ cups (hot) water
- food colouring
- scent or flavouring (optional)

Utensils: bowl, measuring cup, measuring spoons, cookie cutters, rolling pins

What to do:

- Mix food colouring and scent/flavour into water.
- Mix together flour, salt, and alum.
- Add oil and water.
- Knead the mixture, adding in more flour if it is too sticky, or more water if it is too dry.
- Once the texture is right, divide it up for each child.
- Store the playdough in a plastic bag or container. It should last several weeks if you add alum, or longer if you store it in the fridge. Once it starts to dry out, allow the children to create 3-D figures using other loose parts such as straws, buttons, and so on. Then, it's time to make some more!

Oobleck or Cornstarch Magic

In a large roasting pan with sides, pour in a box of cornstarch. Add a little water. If you use your water table, you will need three or four boxes of cornstarch.

Let the children mix up the cornstarch and water with their fingers. If the material is too stiff to mix, add more water until it's just a little bit stiff. Let it sit for a few moments. The texture should be halfway between liquid and solid. You should be able to pick up the mixture with your fingers in a ball, but it will immediately begin to melt between your fingers.

Add small toys or tools to extend the fun: funnels, measuring cups, wooden spoons, spatulas, or other creative items.

If the mixture dries out, just add a little more water. This can be very messy, so smocks are advised!

When you're all finished with the mixture and are ready to discard it, put it in the compost or trash; do not try to put it down the drain. Or, to save this mixture, let it dry out completely, then put it in a plastic bag or an airtight container for another day.

Appendix Q: The Learning Landscapes: Multiple Ways of Knowing

How do I perceive the world in multiple ways . . .	How do I make meaning . . .	How do I communicate my thinking, understanding, learning . . .	How do I build my identity and my relationships with others, with my community, with Earth . . .	What do I do with what I know . . .

Through:
■ My senses and sensibilities (eyes, hands, ears, heart)
■ Cultural teachings (e.g., Medicine Wheel teaching) and stories (Elders, parents, family)
■ My health and well-being
■ Cultural lenses and identities
  ■ Gender
  ■ Age
  ■ Language(s)
  ■ Beliefs and values
  ■ Socio-economic status
  ■ Ethnic heritage
  ■ Family history
  ■ Life experiences
  ■ Friends
  ■ Skin colour/body shape/weight
  ■ Abilities/ disabilities
■ My experiences (prior experiences, events, history)
■ My connections to the land and the Earth
■ The arts (music, visual arts, dance, drama)
■ Symbols
■ Multiple representations (models, 2-D, 3-D)
■ Texts (oral, visual, print, media, instruments, technology)
■ Mental images
	■ Do
	■ Explore
	■ Use metaphors
	■ Identify and recognize bias
	■ Reflect
	■ View and review
	■ Listen and re-listen
	■ Read and reread
	■ Dream, vision
	■ Share stories (traditional, historical, cultural)
	■ Imagine
	■ Represent and re-represent
	■ Inquire (across time, roles, purposes, meaning)
	■ Chart
	■ Test my hypothesis
	■ Ask others (Knowledge Keeper, family member, friend, expert, artist)
	■ Learn through prior experiences
	■ Examine new perspectives
	■ Relate and connect
	■ Ask questions
	■ Engage in conversation (collective discovery)
	■ Create and recreate
	■ Resolve cognitive dissonance
	■ Retell experiences
	■ Determine language, purpose, and audience
	■ Use cueing systems (pragmatic, textual, syntactical, semantic, graphophonic, gestural)
	■ Explore multimedia
	■ Look for and provide evidence
	■ Intuit
	■ Experience emotions and feelings
	■ Move
	■ Take risks
	■ Engage with multiple texts
		■ Represent
		■ Speak
		■ Write
		■ Ask and answer questions (different times, places, social groups, cultures, purposes)
		■ Use multiple and various artistic media, tools, and processes
		■ Share conversations and teachings (with peers, teachers, family members, community members, experts, artists, Elders)
		■ Use a range of oral, print, visual, and multimedia texts
		■ Use language for different purposes (ask, describe, explain, compare, give directions)
		■ Compare/contrast
		■ Classify
		■ Sort
		■ Demonstrate
		■ Make a list
		■ Consider audience
		■ Invent
		■ Use charts and diagrams
		■ Create structures and models
			■ Practise stewardship
			■ Develop positive attitudes
			■ Share
			■ Collaborate
			■ Empathize
			■ Challenge discrimination and inequity
			■ Be part of a sacred circle of life and relate to all with respect
			■ Renew relationships with all life through ceremony
			■ Develop awareness of my cultural lenses and identities
			■ Listen to stories
			■ Experience the land and the Earth
			■ Touch, see, and feel
			■ Listen to my feelings
			■ Use my imagination
			■ Value others' opinions
			■ Think about myself as a reader, writer, representer, viewer, listener, and speaker
			■ Contribute
			■ Belong
			■ Identify cultural lenses and identities
			  ■ Gender
			  ■ Age
			  ■ Language(s)
			  ■ Beliefs and values
			  ■ Socio-economic status
			  ■ Ethnic heritage
			  ■ Family history
			  ■ Life experiences
			  ■ Friends
			  ■ Skin colour/body shape/ weight
			  ■ Abilities/disabilities
				■ Problem solve
				■ Plan
				■ Predict
				■ Devise
				■ Defend
				■ Debate
				■ Clarify my thoughts
				■ Modify ideas
				■ Make conclusions based on evidence
				■ Analyze
				■ Compute
				■ Consider others' needs in working and playing together
				■ Interact fairly, respectfully, and sensitively
				■ Make decisions to care for the Earth and protect our collective future
				■ Identify consequences of my actions
				■ Make and share meanings about the world
				■ Express and communicate my personal feelings, beliefs, and attitudes
				■ Understand that there are many perspectives, choices, and points of view
				■ Construct personal interpretations
				■ Connect a concept/skill so that what I know in one sign system (mathematics) can be recast in anther (visual arts) to ensure that I have new questions to ask, and see new facets, understandings, and ways of knowing
				■ Apply to different contexts, purposes, and situations
				■ Give to others
				■ Add to my growing understanding of what my purpose in life is
				■ Apply knowledge to live a good life
				■ Nurture my creativity
				■ Create
				■ Design
				■ Imagine
				■ Decide
				■ Solve

Appendix R: Rich Learning Contexts

Context of Learning	Possible Questions from Learners to Support Inquiry
Personal and Philosophical	
Children look inward, fostering the learning spirit that comes from the heart and mind connection. That learning spirit is revealed through the individual students' reflection on self and life, on their beliefs and values, and on their ways of knowing. Students have opportunities to ■ explore their identity and self-concept as human beings ■ appreciate the multiple social, physical, cultural, and linguistic factors that contribute to an individual's unique identity	■ Who am I? ■ How do my feelings affect what I do? ■ What do I believe? value? ■ What messages are in art? ■ How can I build a positive mathematics identity? ■ What are my gifts, interests, and talents? ■ How are my culture and language part of my unique identity? ■ What power do I have to cause or promote change? ■ What does the future hold for me? ■ What does *healthy* mean? ■ Is moving necessary?
Social, Cultural, and Historical	
Children look outward to examine their relationships with others, their community, and the world. They have opportunities to explore their connections in families, schools, groups, and communities, and to understand the diverse needs and wants of others in current and historical contexts. Students have opportunities to ■ relate positively and responsibly with their parents, other children, and community members ■ discover themselves as individuals and become aware of their potential ■ structure their personality, and gradually increase their autonomy ■ feel accepted and valued by other people, and sense they belong in the setting ■ contribute their ideas, time, and service to the communities in which they live ■ understand their rights and responsibilities as conscientious members of the community	■ How can I connect to my world? ■ What is a friend? ■ Why is community important? ■ What are my responsibilities to myself? my family? my community? ■ What can art communicate about other people, places, and times? ■ How can I show acceptance of other people as they are? ■ What brings people together in a group? ■ How do I know we belong to our families, our school, and our community? ■ Why do we work? What work would I like to do? Why? ■ What are my rights and responsibilities in communities? ■ Do we always cooperate in a game? ■ Do we need the arts in our community? ■ Why are poppies important? ■ Why do people fight? ■ Why do we need to save animals? ■ Why are children hungry in the world? ■ How am I similar to and different from other people?

(continued)

Context of Learning	Possible Questions from Learners to Support Inquiry
Imaginative	
Children wonder and are curious about their worlds and beyond. They use their imagination and intuition to explore alternative worlds and possibilities. Students have opportunities to ■ use their inventiveness and resourcefulness to explore imaginary worlds ■ consider ideas and possibilities ■ solve problems ■ inquire about their environment	■ What can I create? ■ How do I know I have an answer? ■ Who creates art? ■ What if . . . ? ■ How can I represent my ideas? ■ I wonder if . . . ? ■ Why do we tell stories? ■ If I could create a perfect world, what would it look like? ■ How do I foster imaginative ideas of self and others? ■ How can I represent my ideas? ■ How can I solve a problem?
Communicative	
Children have opportunities to explore different methods, forms, and issues related to language, communication, and the mass media. They consider the role of communication in their lives and the technologies and strategies that help people become effective communicators. Children need the skills to interact effectively with others. Students have opportunities to ■ explore different methods and forms of communicating with others ■ communicate what they know with a variety of materials ■ communicate their understandings of their world with confidence and creativity	■ How can I express what I mean in mathematics? in science? ■ How am I influenced by the media? ■ How can I share what I know? ■ How can I communicate my thoughts and feelings to others? ■ Does this work with every number? ■ Why do we need to communicate? ■ How do you communicate with your family, friends, teachers, or people in your school? ■ How are messages created, sent, and received? ■ What special words describe how we feel? ■ Where do words go when we talk? ■ How do I make sense of and communicate with the world? ■ How do I know whether I am being understood?
Environmental and Technological	
Children explore the natural and constructed worlds, including the land, the sky, animals, the sea, space, technologies, and environmental and technological issues in the world. Students have opportunities to ■ explore their environment actively ■ manipulate objects, act out roles, and experiment with various materials ■ investigate nature to come to know their environment ■ engage in open-ended exploration with increasing independence	■ What can I discover about my world? ■ How do I care for the environment? ■ What actions show care and concern for the environment? ■ How does _____ work? ■ How can my community be a good place for me to live? ■ Why do we need plants and animals? ■ How does the natural and technological world affect and shape me? ■ How are artists influenced by their environments?

Appendix S: Elders in the Classroom*

It is the Elders' responsibility to guard sacred knowledge and to maintain the ceremonial oral tradition of knowledge transmission. The Elders bring with them traditional knowledge and perspectives passed down from generation to generation through the oral tradition. The reference to Elders' wisdom has lately been termed *Indigenous knowledge* or *traditional knowledge*. Their traditional knowledge and wisdom will give insight to teachers willing to reshape curriculum, validating First Nations, Métis, and Inuit content and perspectives.

Elder Expectation

When you invite Elders, it is important that you are clear on what you expect from them. If you are asking them to contribute with their knowledge, wisdom, and guidance, then say so. Some Elders may not be familiar with what teachers and curriculum writers are trying to do, so explaining what is required of them is essential to a good working relationship. You want them to contribute First Nations, Métis, or Inuit content and perspectives. The Elders need to feel confident that they will be of assistance. Let them know that you see their role as wisdom keepers and they need to draw upon their personal experience, cultural knowledge, and teachings to contribute to the process. The Elders will share what is acceptable and give caution for what they view as sacred knowledge that is only to be shared in the context of ceremony.

Elders need time to think before they answer. Do not be impatient and feel they are not answering soon enough, as they will answer your questions in time. Some Elders are reflective, philosophical thinkers. They will review holistically what you have asked of them. A concept that you think is simple and straightforward has many different dimensions to First Nations speakers, and they must put the concept into the context of the whole and analyze the dimension of its interrelatedness. Sometimes they translate what you are saying to themselves in their language. They think things out in their mother tongue first and then find the words of closest approximation in English. Not all words and concepts are readily translatable. That is why letting the Elders know what is expected of them beforehand is important because it gives them time to think it over and to find some area of common ground.

Protocol for Inviting Elders

Please note that there are Elders for each of the Aboriginal groups (five distinct language groups of First Nations in Manitoba, Métis, and Inuit). It is important to

* Source: King, Anna-Leah. "Elders in the Classroom." Adapted with permission of the author. Available as appendices to the resources on the following website: Saskatchewan Teachers' Federation."Unit Plans: Science—Secondary Level." Stewart Resources Center. <https://www.stf.sk.ca/portal.jsp?Sy3uQUnbK9L2RmSZs02CjV/LfyjbyjsxssfEZJZhE4gE=F> (18 Feb. 2015).

identify each of the separate Aboriginal groups—First Nations, Métis, and Inuit—and their respective protocols.

Elders need to be approached in a respectful and traditional way, with consideration for the diversity of belief systems held by individual Elders. Each First Nation has its own protocol and it is important to seek guidance from people who know the Elder you wish to invite. One way of addressing the issue is to allow Elders to take tobacco from a bowl or a pouch of tobacco. In this way the person can accept or decline the tobacco and everyone is respected. Gifts are appropriate for those Elders who do not accept tobacco, and honoraria are used to indicate their service is valued (Manitoba First Nations Education Resource Centre).

Elders can be asked to lead the gatherings with prayer and ceremony. First Nations gatherings always begin with prayer and ceremony. It is entirely appropriate to ask this of them. It may not be what you are familiar with, but you will soon realize the benefits of respecting First Nations protocol and ceremonial practice. The Elders may want to begin with a smudge on the first gathering and offer prayer for the task at hand and the team that has been brought together. The Elders are well aware that any given group put together is there to learn from one another and so blessings towards this endeavour are prayed for. Sometimes, depending on the size of the project, a pipe ceremony may be requested. Each Elder may have a slightly different approach to opening and closing a ceremony. Some may speak for a while. Others will ask you to share so they can become more familiar with everyone. The Elder will take it from there.

Elder Care

Elders do not expect anything, but it would be nice to assign one person to see to their needs. Offer them a comfortable seat and debrief them on the expectations for the gathering. Introduce them to everyone and generally make them feel welcome. See to it that they have water, juice, coffee, or tea. It is good to have a snack for them at coffee break. Invite them to pray over the food before you eat. Allow them to be first in line for lunch or let them know you will serve them. This is an example of First Nations protocol. These are small things, but kind gestures go a long way with Elders. They appreciate when younger people make efforts to lighten their load. These gestures make the Elders feel welcome and cared for in a respectful way.

Gifts

It is appropriate to have a gift of appreciation for the Elders. Even when Elders are paid for their time through an honorarium, some teachers also provide a small gift, such as a basket of teas or jams.

Glossary

Glossary

adaptation

A change made in the teaching process, resources, assignments, or pupil products to help a student achieve the expected learning outcomes.

adult-guided learning experience

A learning experience that emerges from the teacher's goals and the Kindergarten curriculum, but is shaped by the children's active engagement.

alignment

Refers to social and pedagogical experiences and processes that are common across the early childhood development (ECD) community, based upon research about the developmental characteristics and learning of children from birth through eight years of age. Alignment of children's learning and development is enhanced when Early Years educators (in schools and other ECD settings) and parents work together to support children in early learning programs and at home.

appropriate educational programming

A collaborative school-family-community process whereby school communities create learning environments and provide resources and services responsive to the lifelong learning, social, and emotional needs of all students.

assessment

The systematic process of gathering information about what a child knows, is able to do, and is learning to do. Student assessment is integrated with learning and teaching, thus engaging the children, parents, teachers, and administrators (the learning community) in insightful observation, descriptive feedback, reflection, goal setting, adjusting instruction, and celebrating learning.

backward design

An approach to planning with the end in mind (i.e., the learning outcomes). This approach is the reverse of the traditional approach (where planning begins with the topics in the textbook or other resources, and leads to student activities and assessment of what has been learned). Backward design begins with identifying the desired results of learning, determining acceptable evidence, and planning learning experiences and instruction (Wiggins and McTighe).

child-centred practices

Educational practices that begin with what educators know about the children and their own interests and needs, rather than teacher-directed processes focused solely on a predetermined curriculum. See **emergent curriculum**.

child-guided learning experiences

Learning experiences that emerge from children's own interests and actions, with intentional teacher support. See **emergent curriculum**.

co-construction

Children's learning that occurs when they interact with other children and their teachers as they collaboratively work together. Also referred to as **collaborative interactions**.

collaboration

Working together toward agreed-upon goals within school policies and practices (adults); negotiating and working toward common goals while playing together (children).

continuity

Occurs when the new learning environment builds on children's previous experiences.

curriculum

A pedagogical framework organized to support important goals and outcomes. Curriculum consists of "all the interactions, experiences, activities, routines and events, planned and unplanned, that occur in an environment designed to foster children's learning and development" (New Zealand Ministry of Education, *Te Whãriki,* cited in Australia Department of Education 47).

developmental domains (holistic development)

Refers to children's holistic development, which can be considered across five interwoven and equally important domains or areas: physical health and well-being, emotional maturity, social competence, language and thinking skills, and communication skills and general knowledge.

developmentally appropriate practice (DAP)

Can be considered a pedagogical approach to Manitoba's Kindergarten curriculum that is informed by what is known about child development and educational effectiveness. It is culturally sensitive, inclusive, focused on the whole child, and play-based, and is intentionally designed to promote young children's optimal learning and development. A developmentally appropriate approach to teaching is based upon the understanding that children are active learners who construct their own knowledge by interacting with their classmates, their teacher, other key adults in their lives, and a rich environment and rich learning experiences.

differentiated instruction

A method of instruction or assessment that alters the presentation of the curriculum for the purpose of responding to the learning diversity, interests, and strengths of students.

discontinuity

Occurs when changes are abrupt and/or systems unconnected, and children and families experience little support or assistance in handling those changes.

diversity*

Encompasses all the ways in which human beings are both similar and different. Honouring diversity means understanding and accepting the uniqueness of all individuals as well as respecting their differences. It is ultimately about acceptance and respect for difference on an individual and group basis. When we recognize and respect the diversity of Kindergarten children and their families, we help to promote children's social and emotional health and a caring classroom where everyone feels included and equal.

documentation (pedagogical)

An ongoing process of observing, recording, and reflecting on children's learning and development. As a vehicle for learning, documentation bridges the understanding of children and adults, and honours the idea of co-construction. It allows teachers to use their own professional judgment and a thorough familiarity with the curriculum, child development, and knowledge about the children in the class to make developmentally appropriate decisions and to make play-based learning more transparent for the children and their families.

early childhood development (ECD)

In Manitoba, the acronym ECD is often used to refer to early childhood development, which sets the foundation for lifelong learning, behaviour, and health. Recent research shows that "children's early years are an important time in brain development and a key factor in determining success later in life" (Healthy Child Manitoba, *Early Childhood Development*). The ECD community refers to the many partners who care about young children, including persons connected to early learning and child care services, Healthy Child Manitoba programs for families, Early Years schools, and First Nations education allies.

early identification

The process used to identify students with exceptional learning needs in preschool, Kindergarten, the Early Years, or as early as possible in students' education before or after their entry into school.

Elders

The respected keepers of knowledge and traditions to whom First Nations, Métis, and Inuit communities look for advice and wisdom.

* The four terms marked with an asterisk (*) signal the importance of departmental initiatives toward building acceptance and respect for human differences, eliminating systemic barriers and impediments to educational equity, and building inclusive school cultures, in both policy and practice.

emergent curriculum

Teachers' emergent educational plans based upon their deep understanding of the Kindergarten curriculum outcomes and their appreciation for each child's unique zone of proximal development and personal interests. An emergent curriculum approach encourages children to explore their own current interests and passions. Planning begins when a teacher sees a child's interest beginning to emerge. The teacher is open to many possibilities and plans a positive, authentic learning experience around and beyond that interest. Teachers need a good understanding of curriculum outcomes so that they recognize when there is a match with the child's interests. See **child-centred practices** and **child-guided learning experience**.

engagement (family or parental)

A reciprocal commitment of educators and families to one another for the benefit of the children.

English as an additional language (EAL) learners

Students whose first or primary language(s) is other than English and who require specialized programming and/or additional services to develop English language proficiency and to realize their potential within Manitoba's school system. An EAL student may be someone who has come from another country or who was born in Canada.

environmental print

Refers (in early literacy) to the print of children's everyday lives, such as easy-to-recognize signs, and familiar labels and logos. For many emergent readers, environmental print helps bridge the connection between letters and first efforts to read.

equity*

A concept that flows directly from a concern for equality and social justice in a democratic society. Educational equity refers most broadly to a condition of fairness with respect to educational opportunities, access, and outcomes for all people. Departmental initiatives towards equity are intended to remove barriers to equality by identifying and eliminating discriminatory policies and practices.

evaluation

The process of interpreting assessment information, determining to what extent children have attained learning outcomes and standards, and describing the quality of their learning. Evaluation is used primarily for communicating student achievement.

fine motor skills

The abilities required for activities that involve concentration and small, precise thumb, finger, hand, and wrist movements (e.g., stringing beads, building with interlocking blocks, holding a crayon or pencil).

flow

A psychological construct, first described by Mihaly Csikszentmihalyi, referring to a state of engrossed concentration when it seems as though time has stopped. For young children, this flow may occur when they are playing and learning in their zone of proximal development, when there is just enough challenge to keep them interested, but not so much that they become frustrated. When children or adults are in a state of flow, they feel satisfied, happy, and even joyful.

graduated risk

Intentionally offers children developmentally appropriate exposure to risky play. When children have control over the degree of their exposure to risk, they have the chance to develop mastery-oriented thoughts (I can do this!); this type of play helps reduce children's anxiety and fear about trying new things. Perseverance in facing challenges and solving problems has been found to transfer to academic endeavours. Teachers (and school leaders) mediate the risk by making sound decisions based upon risk benefit.

gross motor skills

The abilities required to control the large muscles of the body for walking, running, sitting, crawling, and other activities.

holistic development (developmental domains)

Refers to children's holistic development, which can be considered across five interwoven and equally important domains or areas: physical health and well-being, emotional maturity, social competence, language and thinking skills, and communication skills and general knowledge.

inclusion*

A way of thinking and acting that allows every individual to feel accepted, valued, and safe. Fundamentally, it is about everyone. An inclusive community consciously evolves to meet the changing needs of its members and seeks to ensure that all students live full lives and learn to live together with others. Through the recognition of the rights of those with differing abilities, contexts, and needs, and active support for fulfilling those rights, an inclusive community provides meaningful involvement and equal access to the benefits of citizenship. Building community is a core ideal of inclusion and, therefore, caring about and enhancing the well-being of every member of the community and of the collective is essential. Inclusion is much more than the physical location or placement of learners. Social inclusion is embracing of diversity, advocacy, and transformation. See **diversity**.

Indigenous knowledge

Refers to the diversity of First Nations, Métis, and Inuit cultures, traditions, perspectives, practices, and products, transmitted over time and through the generations. Indigenous knowledge is a valid way to understand the world; Indigenous and Western knowledge are complementary. (For more information, see Alaska Native Science Commission.)

individual education plan (IEP)

A written document developed and implemented by a team, outlining a plan to address a child's unique learning needs. The written IEP may range in length from one page documenting student-specific adaptations developed by a student's teacher(s) in consultation with the parent(s), to a lengthier documentation of a student's programming outlining student-specific outcomes developed by a larger team that may also include resource, clinical, and other student services supports. The term *IEP* is inclusive of other acronyms such as individual transition plan (ITP), behaviour intervention plan (BIP), assisted learning plan (ALP), and so on.

individualized programming

Programming intended for children whose cognitive disabilities are so severe or profound that they do not benefit from participating in curricula developed or approved by Manitoba Education and Advanced Learning. The IEP outlines highly individualized learning experiences that are functionally appropriate.

inquiry

Grows out of children's natural inclination to question the world. Inquiry is fuelled by children's curiosity and shaped and reshaped as the process forges ahead with new understandings and questions. It is a shared responsibility.

inquiry-based learning

Learning that "grows out of students' natural inclination to question the world. Inquiries may be brief, resolved by referring to a book in the library or an Internet search, or they may lead students to an in-depth study that engages them for an entire year or more. Building classrooms around inquiry engages students, integrates process and content from all disciplines, and fosters self-directed learning" (Manitoba Education and Youth, *Independent Together* 6.3).

integrated curriculum

Holistic and meaningful connections within and across subject areas. Young children do not learn about subjects in distinct or separate blocks; rather, they learn holistically across all their developmental domains and learn best when the natural connections between the various Kindergarten curricula can be woven together and experienced as a whole. For example, while children are weaving, learning outcomes in mathematics (patterns), science (colour), visual arts (3-D art), and First Nations, Métis, and Inuit perspectives (learning about Métis culture) can all be met in a seamless, holistic way.

intentional teaching

Involves educators who have clear goals and learning outcomes in mind for the types of learning experiences offered to Kindergarten children, based on what they know about children's development and what they observe in their classroom. Intentional teachers use this kind of information to help select strategies for teaching and learning and determine how they set up their environment, how they authentically assess children's learning, and how they interact with the children and engage with their families.

learning invitation

An experience intentionally organized by the teacher to invite children's curiosity and desire to explore and problem-solve, often in an extended way, and typically with peers in small groups where cooperation and co-construction of knowledge can be facilitated. A learning invitation is sometimes referred to as a **provocation**.

learning landscapes

A metaphor used to conceptualize curriculum and curriculum development of knowledge "as a complex organic network organized in living fields, territories or 'landscapes,'" which is a shift "away from knowledge pictured as fragmented pieces put together, one piece at a time, in a linear fashion on an assembly line" (Western and Northern Canadian Protocol for Collaboration in Education 6). The learning landscapes metaphor is closely related to **integrated curriculum**, **holistic development**, and multiple ways of knowing.

loose parts

Open-ended materials that can be moved, carried, combined, redesigned, lined up, and taken apart and put back together in multiple and imaginative ways. They may include various items from the natural and human-made world, such as ropes, string, bales of hay, tree stumps or logs, sand, gravel, shells, balls, buckets, baskets, cups, buttons, swaths of fabric of different textures, cardboard boxes, and so on.

metacognition

The ability to think about thinking. When children can plan ahead about what they would like to do today or this week, or when they can talk about what they know already and what they would like to learn about, or evaluate how they did on an activity, they are demonstrating metacognition.

modification

Changes in the number or the content of the learning outcomes a student with a significant cognitive disability is expected to meet in the provincial curriculum, as determined by the student support team.

norm-referenced assessment

Assessing each child's performance in terms of other children's performance (i.e., the normative sample).

observation

A purposeful, systematic, and cumulative classroom assessment method that focuses on what the learner knows and can do in a variety of authentic contexts in order to inform instruction, improve learning, and assess or evaluate achievement.

partnerships

Formal and informal relationships and processes in which educators participate to support children's early learning and development. They are most effective when partners share a common vision, goals, and expectations, and commit to open communication and mutual respect.

pedagogy

A philosophical approach to the way teachers promote children's development and learning. Play-based learning in the Kindergarten curriculum demonstrates a child-centred pedagogy.

project approach

An in-depth inquiry by several children or the whole class that often occurs over an extended period of time and responds to children's own interests (see **emergent curriculum)**. The topic for a project must be personally meaningful, discovery-based, build on and extend the children's prior knowledge, involve collaboration, and provide the opportunity to represent learning. Many projects culminate with a celebration or the opportunity to showcase learning in some way.

provocation

An experience intentionally organized by the teacher to invite children's curiosity and desire to explore and problem-solve, often in an extended way, and typically with peers in small groups where cooperation and co-construction of knowledge can be facilitated. A provocation is sometimes referred to as a **learning invitation**.

running record

Continuous documentation of a child's behaviour over a specific block of time.

scaffolding

Intentionally making decisions and taking actions that build upon (or scaffold on) children's prior knowledge and skills, to further their learning.

school community

Includes several constituents, including local businesses, early childhood development and cultural organizations, government services (local, provincial, federal), social service agencies, job-training services, recreational services, and health services. It also encompasses school administrators, teachers, and other staff, students and their families, school board members, parent advisory councils, and others invested in the school's welfare and success.

school readiness

Can be conceptualized as a child's developmental health at school entry.

screening

The process of collecting data to decide whether more intensive assessment is necessary.

self-regulation

The ability to stay calmly focused and alert.

sustainability*

Just and equitable sustainable development. Sustainability relates to the application of science and innovation, policies, and personal and collective practices to ensure a better quality of life for all, now and into the future, in a just and equitable manner, while living within the limits of the supporting ecosystems. This view of sustainable development puts a priority on justice and equity, while at the same time maintaining the importance of the environment and the global life support system.

task orientation

Is supported by large blocks of time when children carry out their plans to their conclusion.

teachable moments

Unplanned opportunities that arise in the classroom when a teacher has an ideal chance to offer insight to children.

theory of mind

Refers to a child's growing awareness that his or her thoughts may differ from those of other persons and that each individual can hold his or her own point of view.

transdisciplinary

A model by which professionals support one another through continuous staff development, joint team functioning, role release, and role substitution.

transition

A supportive learning experience that helps to organize children as they move from one learning situation or system to another. Effective transitions promote continuity between these settings (e.g., from home to Kindergarten, between Kindergarten and child care services, and from the Kindergarten year to Grade 1).

universal design

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

zone of proximal development (ZPD)

Refers to the cusp of a child's emerging skills. While tasks within this zone may prove too difficult for a child to handle alone, with coaching and support from "more knowledgeable others," the child can perform the task successfully.

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