EARLY YEARS

COMPULSORY SUBJECT AREAS

The six compulsory subject areas that comprise Early Years English program are as follows.

Arts Education

Arts education is not limited to performance and artistic production; the process of learning about and through the arts also involves exploration and reflection, historical and cultural studies, and the search for value and meaning.

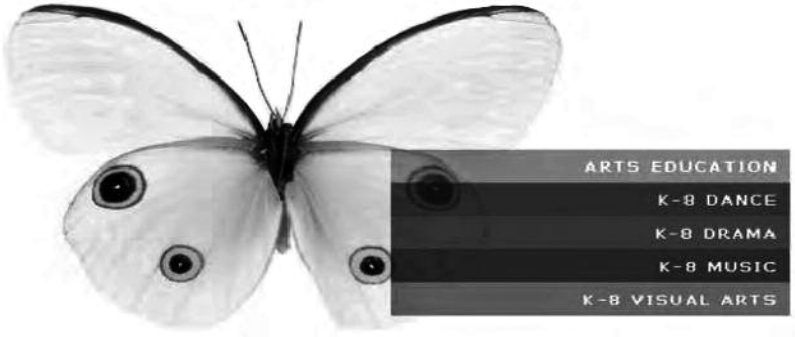
The individual arts (dance, drama, music, and the visual arts) are characterized by unique forms, each employing a variety of media. Students require substantive instruction and active participation in the arts to gain knowledge, skills, and understanding in one or more of the arts.

Essential Goal

The essential goal of arts education is to develop the student's artistic self. This is achieved by enabling students to

- acquire language and skills specific to the arts disciplines
- explore and express ideas through artistic creation
- understand arts works and ideas from many cultural and historical contexts
- value and construct meaning from a wide range of arts works and experiences

The Butterfly



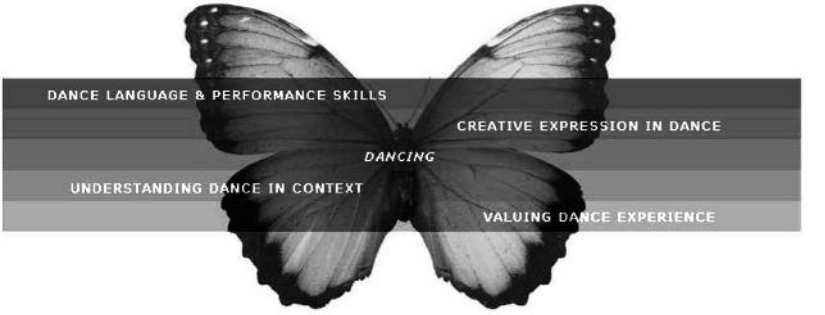
Each art discipline (dance, drama, music, and the visual arts) is represented by the image of a butterfly.

The Body of the Butterfly: The centre of the butterfly represents the student engaged in active, participatory arts learning experiences.

The Wings Working Together: As one looks at the centre of the butterfly to the wings, a new set of relationships emerge. Each wing represents one of the essential learning areas into which the general and specific learning outcomes are organized. Just as real wings work in coordination with each other, the essential learning areas are intended to function in an integrated way. Rich thematic arts experiences will invariably integrate learning outcomes from two, three, or all four areas.

The Wings Individually: The organization of learning outcomes into distinct, interrelated learning areas, or wings, is intended to give a clear outline of the knowledge, skills, and attitudes students will be expected to demonstrate at various grade levels.

Dance



Dance Language and Performance Skills

Students develop understanding of and facility with dance elements, concepts, and techniques.

- Students demonstrate understanding of and facility with the elements of dance in a variety of contexts.
- Students develop facility with dance techniques.
- Students demonstrate musicality through dance.

Creative Expression in Dance

Students collaboratively and individually generate, develop, and communicate ideas in creating and performing dance for a variety of purposes and audiences.

- Students generate and use ideas from a variety of sources for creating and performing dance.
- Students develop ideas in dance, creatively integrating dance elements, techniques, and other choreographic considerations.
- Students perform and share their own and others' dance.

Understanding Dance in Context

Students connect dance to contexts of time, place, and community, and develop understanding of how dance reflects and influences culture and identity.

- Students experience and develop awareness of dance from various times, places, social groups, and cultures.
- Students experience and develop awareness of a variety of dance genres, styles, and traditions.
- Students demonstrate understanding of the roles, purposes, and meanings of dance in the lives of individuals and in communities.

Valuing Dance Experience

Students analyze, reflect on, and construct meaning in response to their own and others' dance.

- Students demonstrate interest, curiosity, and engagement while experiencing dance in a variety of contexts.
- Students analyze their own and others' dance excerpts, works, and performances.
- Students construct personal interpretations of their own and others' dance.
- Students assess their learning in performing, creating, and experiencing dance.

Drama

Drama Language and Performance Skills

Students develop understanding of and facility with dramatic forms and elements.

- Students demonstrate understanding of and facility with a variety of dramatic forms.
- Students demonstrate understanding of and facility with character and role in drama.
- Students demonstrate understanding of and facility with theatrical elements that contribute to drama.

Creative Expression in Drama

Students collaboratively and individually generate, develop and communicate ideas in creating and performing drama for a variety of purposes and audiences.

- Students generate and use ideas from a variety of sources for creating drama.
- Students creatively integrate ideas, elements, and forms in developing drama.
- Students perform and share their own and others' drama.

Understanding Drama in Context

Students connect drama to contexts of time, place, and community, and develop understanding of how drama reflects and influences culture and identity.

- Students experience and develop awareness of drama from various times, places, social groups, and cultures.

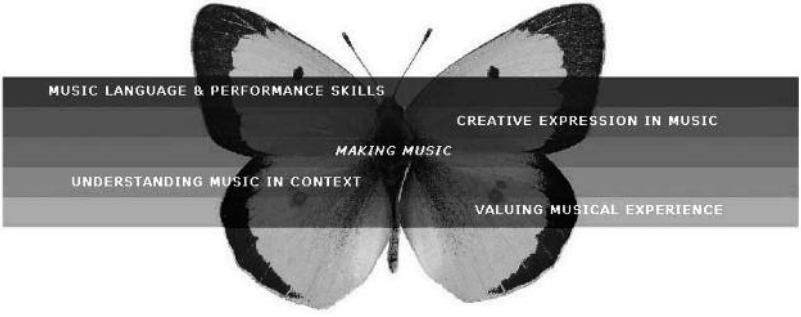
- Students experience and develop awareness of a variety of dramatic forms, styles, and traditions.
- Students demonstrate understanding of the roles, purposes, and meanings of drama in the lives of individuals and in communities.

Valuing Drama Experience

Students analyze, reflect on, and construct meaning in response to their own and others' dramatic work.

- Students demonstrate interest, curiosity, and engagement while experiencing drama in a variety of contexts.
- Students analyze their own and others' drama.
- Students construct personal interpretations of their own and others' drama.
- Students assess their learning in performing, creating, and experiencing drama.

Music



Music Language and Performance Skills

Students develop understanding of and facility with elements, concepts, and techniques for making music.

- Students develop skills for making music individually and as part of an ensemble.
- Students develop skills for making music through aural, written, and visual music systems.

- Students demonstrate understanding of and facility with rhythm, melody, texture, and harmony in a variety of musical contexts.
- Students demonstrate understanding of expression, timbre, and form in a variety of musical contexts.

Creative Expression in Music

Students collaboratively and individually generate, develop, and communicate ideas in creating original and interpretive music for a variety of purposes and audiences.

- Students generate and use ideas from a variety of sources for creating music.
- Students develop ideas in music, creatively integrating music elements, techniques, and compositional tools.
- Students interpret, perform, and share their own and others' music.

Understanding Music in Context

Students connect music to contexts of time, place, and community, and develop understanding of how music reflects and influences culture and identity.

- Students experience and develop awareness of music from various times, places, social groups, and cultures.
- Students experience and develop awareness of a variety of music genres, styles, and traditions.
- Students demonstrate understanding of the roles, purposes, and meanings of music in the lives of individuals and in communities.

Valuing Musical Experience

Students analyze, reflect on, and construct meaning in response to their own and others' music.

- Students demonstrate interest, curiosity, and engagement while making and experiencing music in a variety of contexts.
- Students analyze their own and others' musical excerpts, works, and performances.
- Students form personal responses to and construct meaning from their own and others' music.
- Students assess their learning in performing, creating, and experiencing music.

Visual Arts

Art Language and Tools

Students demonstrate understanding of and facility with visual art elements, principles, and media.

- Students demonstrate understanding of the elements and principles of artistic design in a variety of contexts.
- Students demonstrate understanding of and facility with visual art media, tools, and processes.
- Students develop skills in observation and depiction.

Creative Expression in Art

Students individually and collaboratively generate, develop, and communicate ideas in creating visual art for a variety of purposes and audiences.

- Students generate and use ideas from a variety of sources for creating art.
- Students develop original artworks, creatively integrating ideas and art elements, principles, and media.
- Students finalize and share their original artworks.

Understanding Art in Context

Students connect the visual arts to contexts of time, place, and community, and develop understanding of how art reflects and influences culture and identity.

- Students experience and develop awareness of artworks from various times, places, social groups, and cultures.
- Students experience and develop appreciation for a variety of art forms, styles, and traditions.
- Students demonstrate understanding of the roles, purposes, and meanings of the visual arts in the lives of individuals and in communities.

Valuing Artistic Experience

Students analyze, reflect on, and construct meaning in response to their own and others' visual art.

- Students demonstrate interest, curiosity, and engagement while experiencing art in a variety of contexts.
- Students analyze their own and others' artistic compositions.
- Students construct personal interpretations of their own and others' artworks.
- Students assess their learning in creating and experiencing art.

English Language Arts

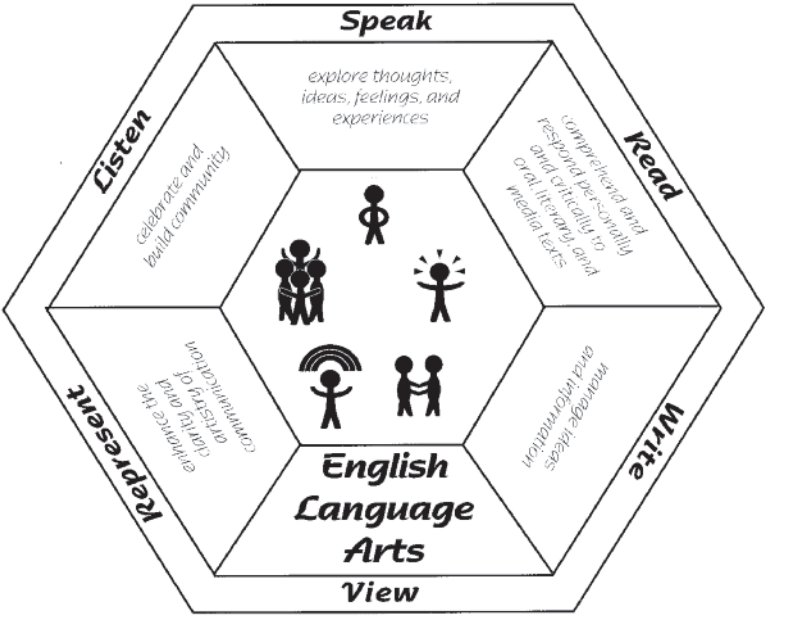
Throughout English language arts instruction, teachers engage students in rich learning opportunities that integrate listening, speaking, reading, writing, viewing, and representing (all six language arts). Students learn to understand and appreciate language, develop proficiency that generates confidence and competence, and view themselves as language learners.

Goal

The goal of English language arts instruction is not only to develop language and literacy skills through listening, speaking, reading, writing, viewing, and representing. It also needs to foster positive attitudes about literacy and about self as a language learner, where students set goals and reflect on their learning within a caring community of learners. Within authentic literacy rich learning contexts, students talk about, engage with, and create a wide range of oral, print, and media texts.

Organizational Framework

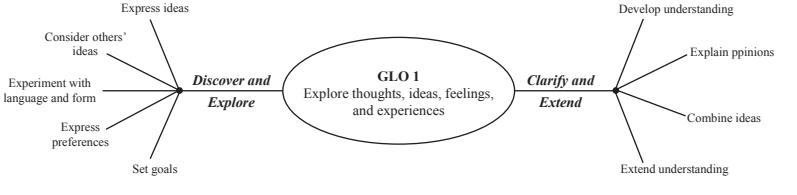
Early Years students are eager to make sense of the world and are developmentally ready to explore, take risks, and discover understanding. Reading, listening, and viewing provide access to rich literacy models that help students learn language and forms of expressions. Effective Early Years classrooms immerse students in wide variety of texts that include oral, print, and other media communication. Writing, representing, and talking provide a variety of means for students to use language and forms, to develop ownership of them.



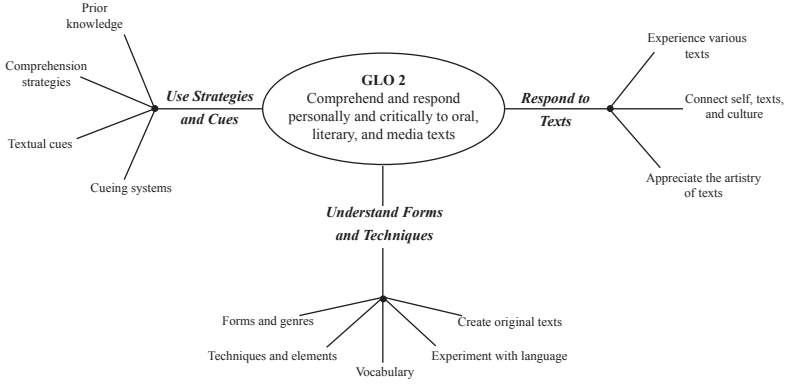
General Learning Outcomes

The five general learning outcomes (GLOs) identify the knowledge, skills and strategies, and attitudes that students learn in English language arts by the end of the grade. They are the foundation of the Language Arts Program.

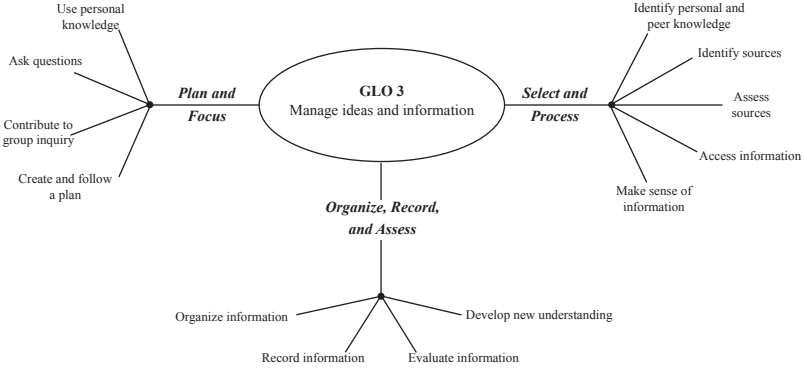
General Learning Outcome 1: Students will listen, speak, read, write, view, and represent to explore thoughts, ideas, feelings, and experiences.



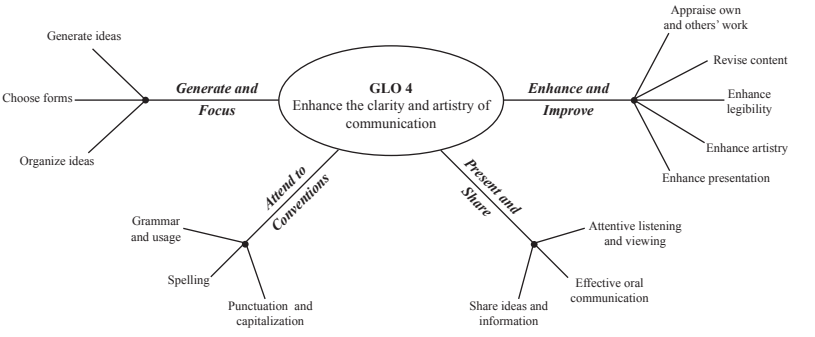
General Learning Outcome 2: Students will listen, speak, read, write, view, and represent to comprehend and respond personally and critically to oral, literary, and media texts.



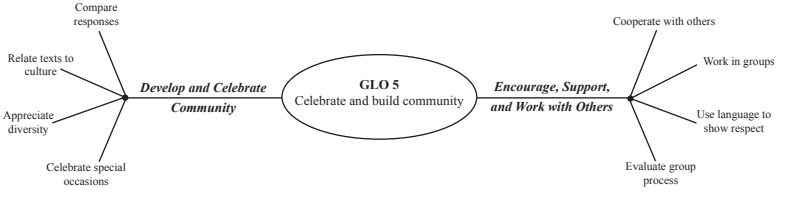
General Learning Outcome 3: Students will listen, speak, read, write, view, and represent to manage ideas and information.



General Learning Outcome 4: Students will listen, speak, read, write, view, and represent to enhance the clarity and artistry of communication.



General Learning Outcome 5: Students will listen, speak, read, write, view, and represent to celebrate and to build community.



English Language Arts Program

In a language arts program, the six language arts and the learning outcomes are integrated into logical and developmentally appropriate learning sequences. When the teacher determines the focus for instruction, based on identified student learning needs, a specific learning outcome (SLO) or a group of SLOs can be the starting point for planning the organization, pace and focus of instruction, along with assessment processes. Effective language arts classroom learning experiences typically address many learning outcomes simultaneously, teacher will target one or more outcomes for assessment.

The learning outcomes are interrelated and interdependent. They guide educators as they

- plan learning experiences
- set instructional goals and help students set learning goals
- monitor progress
- communicate student progress in reporting (home/school)
- develop a literacy/assessment plan

Grade Overview

In the study of English language arts, Early Years students learn to *listen*, *speak, read, write, view*, and *represent*, through multiple, varied, and developmentally appropriate learning experiences. Classroom learning reflects "everyday" experiences where students learn to choose and use the six language arts for real purposes.

Kindergarten

- Students talk and think about their own experiences, stories, and new ideas; and listen actively to others' ideas and feelings to help set classroom and personal learning goals.
- Students learn that objects, things, and "talk" can be represented through pictures and print; enjoy hearing an adult read aloud picture books, chants, songs, and nursery rhymes; and talk about or show what they have seen and heard from print and videos.
- Students ask questions to satisfy curiosity and for class inquiry and find answers from own experiences, others, objects, pictures, books, and videos.
- Students know that messages are created through talking, drawing, singing, and writing, and share "stories" and ideas with classmates.
- Students learn to participate in making class plans; and think of ways to help others.

Grade 1

- Students talk and think about their own experiences and familiar events; and respond to others' ideas and feelings to set classroom and personal learning goals.
- Students learn and practise word-solving strategies through familiar songs, chants, nursery rhymes, and pattern and picture books; choose stories, songs, and poems to be read aloud by an adult; and talk about or show personal connections to what they have seen and heard from print and videos.
- Students talk and ask questions about a topic and what they want to learn for class or personal inquiry; and find answers from their own experiences, others, objects, pictures, books, libraries, and videos.
- Students tell, draw, and write their own ideas to share with others through storytelling, pictures, singing, and role-playing.
- Students learn to share ideas, take turns, cooperate, help others, and ask others for help.

Grade 2

- Students talk and think about what they, and others, can do to set and keep track of new learning goals.
- Students discover ways to understand and make meaning from texts; practise reading and viewing a variety of "just-right" books, chants, poems, magazines, articles, and videos independently; and show connections between texts and their own feelings, experiences, and ideas.
- Students ask questions to learn more about own or class topics/projects; and access models and processes to find answers from sources such as elders, libraries, tables of contents, pictures, multimedia materials, and so on.
- Students use their talking, drawing, and writing to communicate an idea to someone; and think about what their ideas look or sound like to others by changing their words, pictures, or presentation.
- Students participate in large and small groups to work cooperatively.

Grade 3

- Students talk about and reflect on their own and others' learning; and show evidence that they are working on their goals.
- Students use comprehension and word-solving strategies to read and view for enjoyment and information; and talk about and/or show understanding, learning, and connections among a wide range of stories, books, videos, and cultural traditions.
- Students ask topic appropriate questions to learn more about their own or class inquiry; follow a plan to find answers and important information from magazines, plays, songs, books, libraries, multimedia sources, and so on.
- Students create own messages, stories, murals, and so on, for different audiences and purposes; and begin to make changes for sharing with others by improving their words, sentences, spelling, and/or presentation.
- Students show respect for others; and understand how to help others in large and small groups.

Grade 4

- Students talk about and reflect on their own learning and others' ideas; and set and monitor goals to improve language learning.
- Students use past experiences and what they know about books, stories, and language to problem solve meaning from new texts; and explore different ways to learn, think, and respond to texts such as folktales, poetry, sculpture, news reports, videos, and so on.
- Students choose topics, ask general and specific questions, and use a plan for inquiry; and explore a variety of information sources such as people, libraries, maps, dictionaries, videos, technology, and so on, to answer their questions.
- Students experiment with different audiences, purposes and forms; create a variety of oral, written, and visual texts such as mind maps, "jot notes," graphs, stories, plays, and so on, and edit for complete sentences, punctuation, and spelling.
- Students talk about personal responsibilities to improve working in groups; and appreciate how language is used in various ways with different community members.

MATHEMATICS

The mathematics curriculum is designed to support and promote the understanding that mathematics is a way of learning about our world and is part of our daily lives. Mathematics and its study encourage the development of creative and logical thinking, problem-solving skills, and co-operative interaction. The learning environment should value and respect all students' experiences and ways of thinking, so that learners are comfortable taking intellectual risks, asking questions, and posing conjectures.

Goals

The main goals of mathematics education are to prepare students to

- use mathematics confidently to solve problems
- communicate and reason mathematically
- appreciate and value mathematics
- make connections between mathematics and its application
- commit themselves to lifelong learning
- become mathematically literate adults, using mathematics to contribute to society

Nature of Mathematics

Mathematics is one way of trying to understand, interpret, and describe our world. There are a number of components that define the nature of mathematics and these are woven throughout the curriculum. These components include *change*, *constancy*, *number sense*, *patterns*, *relationships*, *spatial sense* and *uncertainty*.

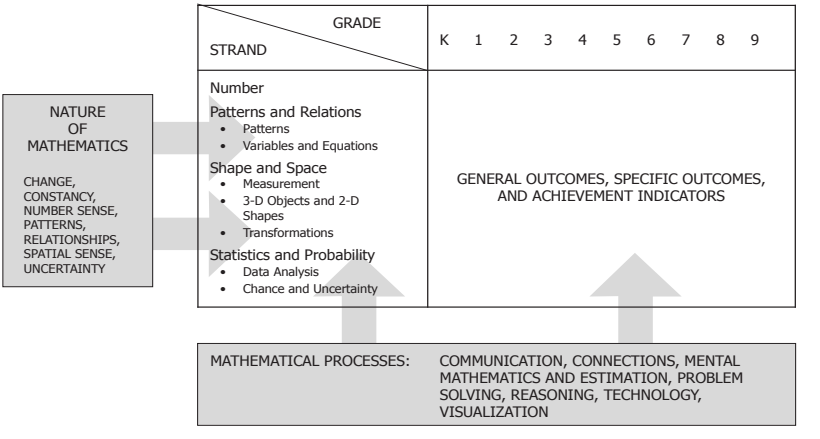
Mathematical Processes

Students use seven critical mathematical processes in order to build their understanding of mathematics and to support lifelong learning. They are:

- Communication: showing learning orally, through diagrams, and in writing
- Connections: making connections among everyday situations, other subject areas, and mathematics concepts
- Mental Mathematics and Estimation: developing understanding of numbers and quantities
- Problem Solving: investigating problems, including those with multiple solutions
- Reasoning: justifying thinking
- Technology: using technology to enhance problem solving and encourage discovery of number patterns
- Visualization: drawing on mental images to clarify concepts

Conceptual Framework

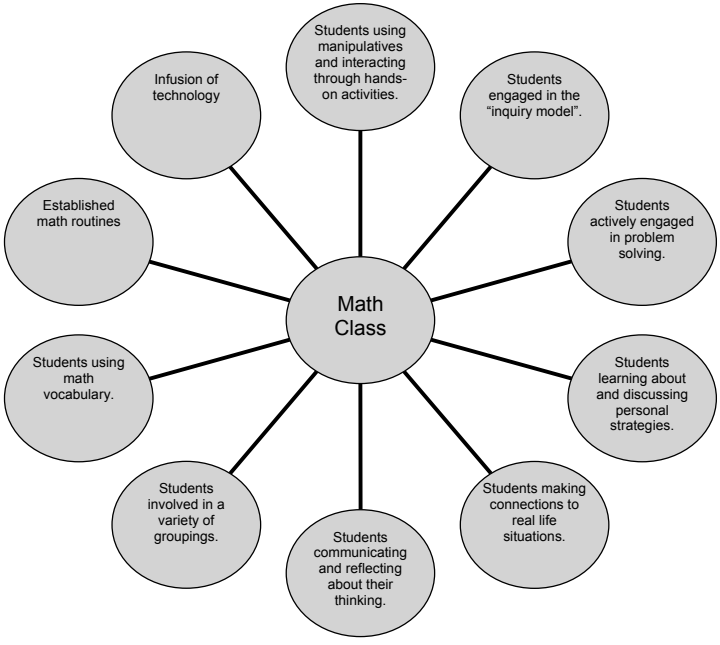
The following conceptual framework provides an overview of how the **nature of mathematics** and **mathematical processes** influence learning outcomes.



Programming

For balanced programming in mathematics, students should receive instruction through problem-based lessons. Students need to follow a progression of learning from concrete, to pictorial, to symbolic representations in order to construct meaning. During mathematics lessons, students need to be actively engaged, explore solutions, share, and reflect about their thinking.

The following graphic organizer lists some of the components that can be found in a mathematics classroom. The following list is not exhaustive.



Strands and General Learning Outcomes

The learning outcomes in the *Manitoba Curriculum Framework of Outcomes* are organized into four strands (*number*, *patterns and relations*, *shape and space, and statistics and probability*) across the grades. Some strands are further subdivided into substrands.

General learning outcomes (GLOs) are overarching statements about what students are expected to learn in each strand/substrand. The general learning outcome for each strand/substrand is the same throughout the grades.

The strands and substrands, including the general learning outcomes for each strand, follow.

Number

General learning outcome

- Develop number sense.

Patterns and Relations

Patterns

General learning outcome

- Use patterns to describe the world and solve problems.

Variables and Equations

General learning outcome

- Represent algebraic expressions in multiple ways.

Shape and Space

Measurement

General learning outcome

- Use direct or indirect measure to solve problems.

3-D Objects and 2-D Shapes

General learning outcome

- Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

Transformations

General learning outcome

- Describe and analyze position and motion of objects and shapes.

Statistics and Probability

Data Analysis

General learning outcome

- Collect, display, and analyze data to solve problems.

Chance and Uncertainty*

General learning outcome

- Students use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

Grade Overview

A brief description of the content of a given grade is presented in the grade overview.

Kindergarten

- Students describe, orally, and compare quantities (0 to 10) and demonstrate awareness of addition and subtraction.
- Students sort collections of objects and identify, describe, and create patterns from real life.
- Students demonstrate awareness of measurement; sort, classify, and build real-world objects and describe, orally, the position of objects.
- Students, with help, collect information, display it on object graphs, and compare data and talk about something happening using the words: never, sometimes, or always.

* Outcomes involving probability do not appear until Grade 5.

Grade 1

- Students recognize and use numbers from 0 to 100, and explore halves and use informal ways of solving addition and subtraction problems (0 to 18).
- Students sort collections of objects and compare and create patterns from real life.
- Students estimate, measure, and compare using non-standard units, classify objects according to their characteristics, and describe the relative position of objects and shapes.
- Students, with help, collect information in different ways and display it on graphs and describe and compare data.

Grade 2

- Students use numbers to 1000, explore halves, thirds, and quarters and use different methods to add and subtract numbers to 100 in problems.
- Students sort objects, compare and create patterns, and change patterns to different forms.
- Students estimate, measure, and compare lengths (cm/m), use non-standard units for most other measurements, name, describe, and build different objects/shapes, and describe changes in position.
- Students independently ask questions, collect and display information in different graphs, and draw conclusions.

Grade 3

- Students develop understanding of numbers to 1000, explore fifths and tenths, and use all operations to solve and create problems.
- Students sort objects using two characteristics and explain pattern rules and make predictions.
- Students estimate and compare measurements using mostly standard units of measure, classify objects and connect shapes to objects, and use numbers and direction words to describe position.
- Students collect and display information in different ways and interpret data to make predictions.

Grade 4

- Students understand numbers to 10 000, explore fractions and decimals, use all operations to solve and create problems, and use concrete materials to add and subtract tenths and hundredths.
- Students explain relationships and justify predictions about patterns.
- Students estimate, compare, and solve problems in measurement, using decimal numbers/standard units, compare objects, sort shapes, and recognize different lines, and write directions for a given path.
- Students choose a sample or population, and gather data and display them in different ways.

Physical Education and Health Education

The combined physical education/health education (PE/HE) curriculum is designed to address the five major health risks for children and youth:

- inadequate physical activity
- unhealthy dietary behaviours
- drug use, including alcohol and tobacco
- sexual behaviours that result in STIs and unintended pregnancies
- behaviours that result in intentional and unintentional injuries

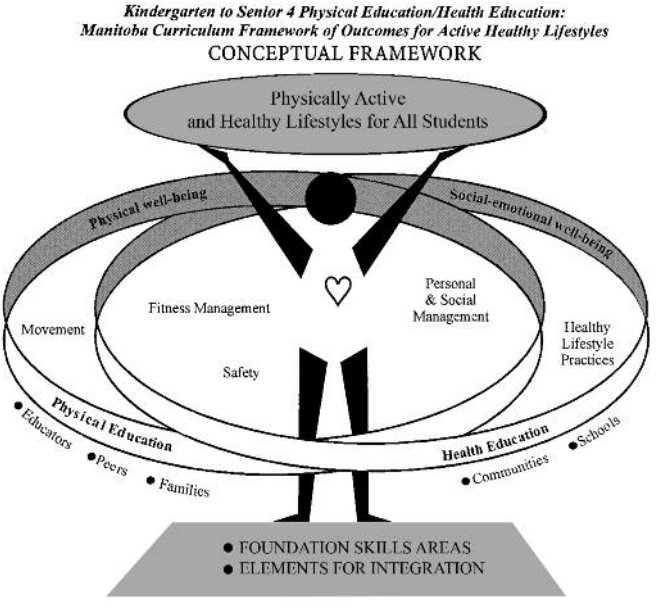
Aim and Vision

The **aim** of the curriculum is to provide students with planned and balanced programming to develop the knowledge, skills, and attitudes for physically active and healthy lifestyles.

The **vision** is *physically active and healthy lifestyles for all students*.

Conceptual Framework

The following **conceptual framework** illustrates the key components upon which the Manitoba physical education/health education curriculum is based.



General Learning Outcomes (GLOs)

The curriculum identifies five GLOs for Kindergarten to Grade 12 students. GLOs are broad statements identifying the knowledge, skills, and attitudes that students are expected to demonstrate with increasing competence and confidence.

The five GLOs are interrelated, cumulative, and interdependent.

Movement

The student will demonstrate competency in selected movement skills, and knowledge of movement development and physical activities with respect to different types of learning experiences, environments, and cultures.

Fitness Management

The student will demonstrate the ability to develop and follow a personal fitness plan for lifelong physical activity and well-being.

Safety

The student will demonstrate safe and responsible behaviours to manage risks and prevent injuries in physical activity participation and in daily living.

Personal and Social Management

The student will demonstrate the ability to develop self-understanding, to make health-enhancing decisions, to work cooperatively and fairly with others, and to build positive relationships with others.

Healthy Lifestyle Practices

The student will demonstrate an ability to make informed decisions for healthy living related to personal health practices, active living, healthy nutritional practices, substance use and abuse, and human sexuality.

Programming

For balanced programming in physical education, students should receive instruction in the following five physical activity categories:

- Individual/Dual Sports/Games
- Team/Group Sports/Games
- Alternative Pursuits
- Rhythmic/Gymnastic Activities
- Fitness Activities

For balanced programming in health education, healthy decision making is emphasized in the following strands or topics:

- Safety of Self and Others
- Personal Development
- Social Development
- Mental-Emotional Development
- Personal Health Practices
- Active Living
- Nutrition
- Substance Use and Abuse Prevention
- Human Sexuality

Safety and Liability

Teachers are expected to provide "professional" standard of care rather than "the careful and prudent parent" standard of care especially in high risk types of physical activities. Educators must be knowledgeable of the four criteria established by the Supreme Court of Canada to determine the necessary and appropriate standard of care within the context of physical education:

- Is the activity suitable to the age, mental, and physical condition of participating students?
- Have the students been progressively taught and coached to perform the activity(ies) properly and to avoid the dangers inherent in the activity(ies)?
- Is the equipment adequate and suitably arranged?
- Is the activity being supervised properly in light of the inherent danger involved?

Current recommended resources related to physical activity safety are:

- *Safety Guidelines for Physical Activity in Manitoba Schools (1997)*
- *YouthSafe Outdoors Manitoba (2004)*
- *OUT-of-Class Safety Handbook: A Resource for Grades 9 to 12 Physical Education/Health Education (2008)*

Treatment of Potentially Sensitive Content

Student learning outcomes in two strands in the general learning outcome *Healthy Lifestyle Practices: Substance Use and Abuse Prevention* and *Human Sexuality* as well as *Personal Safety* (prevention of sexual exploitation and abuse) sub-strand in the general learning outcome *Safety*, may be potentially sensitive to some students and their parents/families and/or communities.

Potentially sensitive content must be treated in ways that are appropriate for the local school and community context. Greater cooperation and coordination among the home, school, and public health systems will contribute to the health and well-being of students.

Note: For more information on treatment of Potentially Sensitive Content, please reference the Kindergarten to Senior 4 Physical Education/ Health Education: Manitoba Curriculum Framework Outcomes for Active Healthy Lifestyles (2000), page 9.

Grade Overview

In the combined physical education/health education curriculum, students develop the knowledge, skills, and attitudes for leading physically active and healthy lifestyles.

The following curriculum content, highlighted for each grade, is organized within the five general learning outcomes.

Kindergarten

- Students recognize concepts related to cooperative play; personal and general space (moving without bumping); body awareness; quick and slow speeds; stop and start signals; and moving around, over, under, and between objects. Students explore the basic movement skills (e.g., running, hopping, jumping, underhand throwing, catching, striking, bouncing, kicking, balancing) by participating in a variety of physical activities.
- Students participate in physical activities for enjoyment and fitness development.
- Students recognize and follow safety rules related to physical activities, footwear, and playgrounds; identify safety symbols and rules related to traffic, school buses, poisons and chemicals, stoves, sharp utensils, bathtubs, and waterfronts; and identify where to go and whom to ask for help in the community.
- Students identify personal characteristics, behaviours, feelings, and emotions related to getting along with others; identify ways to listen attentively, avoid danger, and seek help; and identify behaviours that are safe/healthy or unsafe/unhealthy.
- Students identify daily habits (including daily physical activity, personal and dental hygiene, healthy eating, and adequate sleep/rest) for healthy living; identify helpful and harmful substances; and identify body parts and the right to privacy (e.g., washrooms).

Grade 1

- Students recognize concepts related to directions (e.g., forward, backward); levels (e.g., high, medium, low); body shapes (e.g., curled, straight); qualities of effort (e.g., strong/light, quick/slow); moving in relation to others (e.g., lead, follow, chase); rules; strategies for target games (e.g., bowling); and fair-play behaviour. Students demonstrate basic movement skills (e.g., running, hopping, jumping, underhand throwing, catching, striking, bouncing, kicking, balancing) by participating in a variety of physical activities.
- Students sustain participation in moderate to vigorous physical activities and recognize the physical changes on the body caused by physical activity (e.g., increased heart rate, body temperature).
- Students recognize and follow safety rules related to appropriate footwear, different surfaces (e.g., mats, climbing frames, ice), equipment, facilities, playgrounds, and exercising in different weather conditions; identify safety risks related to toys, clothing, roads and vehicles, school buses, holidays, fires, floods, tornadoes, lightning, unsupervised situations, violence prevention, and abusive situations (including sexual exploitation); and identify where to go and whom to ask for help in the community.
- Students demonstrate how to set and achieve simple goals and demonstrate behaviours for getting along with others and for dealing with conflict and anger.
- Students identify daily habits (including daily physical activity, personal and dental hygiene, healthy eating, and adequate sleep/rest) for healthy living and identify safe and unsafe substances and ways of avoiding unknown substances.

Grade 2

- Students recognize concepts related to balance (e.g., keeping centre of gravity low); pathways (e.g., straight, zigzag); directions (e.g., clockwise, counter-clockwise); planes (e.g., frontal, horizontal); qualities of effort (e.g., time, force, flow); moving in relation to a partner (e.g., lead, mirror, dodge); rules and strategies for tag games; and fair-play behaviour. Students demonstrate basic movement skills (e.g., running, jumping, skipping, rolling, underhand and overhand throwing, catching, striking, bouncing, kicking, balancing) by participating in a variety of physical activities.

- Students sustain participation in a variety of physical activities that contribute to skill/fitness development and enjoyment.
- Students identify and follow basic safety rules related to physical activity (including cycling), safe exercising, clothing, and footwear; and identify safety rules for roads and vehicles, school buses, electricity, weather, seasons, stairs/balconies, tools, Internet use, water/ice conditions, unsupervised situations, and assisting an injured person.
- Students identify examples of personal responsibilities and skills for setting short-term and long-term goals; determining positive and negative consequences of decisions; showing responsibility and respect; communicating positively with others; showing ways friends can be helpful; sharing and expressing feelings; and recognizing causes of stress and ways to reduce stress.
- Students identify appropriate choices related to personal health practices, active living, and healthy eating; and identify basic changes in growth and development, gender differences, and how living things produce their offspring.

Grade 3

- Students show an understanding of concepts related to applying force when pulling, pushing, and carrying; designing movement sequences; balancing objects; showing different qualities of speed, force, and flow; mirroring and matching movements; following rules and strategies for territory/invasion games (e.g., soccer, hockey); and practising fair-play behaviour. Students demonstrate basic movement skills (e.g., running, galloping, skipping, underhand and overhand throwing, catching, striking, kicking, dribbling a ball using feet, balancing and landing safely) by participating in a variety of physical activities.
- Students sustain and record participation in physical activities that increase flexibility, muscular strength, and muscular endurance; and show an understanding of the effects of exercise on the heart and personal factors that may affect participation in physical activity.
- Students identify risk factors and follow safe practices associated with physical activity (including cycling), footwear, clothing, equipment, carrying, lifting, pushing, and pulling; identify safety rules for fire, school bus ridership, crosswalks, seatbelt use, firearms, floatation devices, and railway tracks and crossings; and recognize community safety services, and identify strategies to prevent violence and avoid unsafe situations (including sexual exploitation and unsafe Internet sites).

- Students demonstrate skills and behaviours for showing consideration and respect for others; setting short-term and long-term goals; following steps for healthy decision making and conflict resolution; and recognizing anger triggers and assertive behaviour.
- Students identify appropriate choices related to personal health practices (including prevention of common communicable diseases), active living, healthy eating, and substance use and abuse prevention; and demonstrate avoidance and assertiveness skills related to potentially dangerous situations.

Grade 4

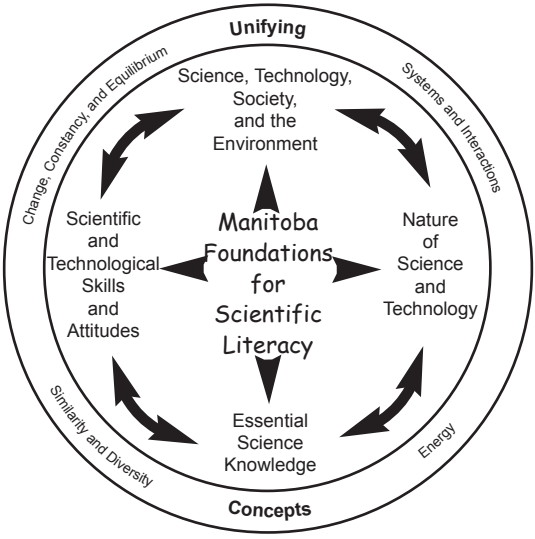
- Students show an understanding of concepts related to force and motion when catching or receiving a pass; space awareness; qualities of effort; choreography of movement sequences; rules and strategies for net/wall games (e.g., volleyball, handball) and striking/fielding games (e.g., softball, ultimate); and fair-play ideals. Students demonstrate functional use of basic movement skills and other locomotor variations in a variety of physical activities.
- Students sustain participation in a variety of physical activities that contribute to fitness, and measure and record personal progress in selected fitness tasks.
- Students identify and follow basic safety rules related to physical activity, exercising, clothing, and footwear; identify safety rules related to fire, school buses, roads and vehicles, and aquatic activities; and identify common injuries and ways to assist an injured person.
- Students demonstrate skills and behaviours related to personal goal setting, action planning when making a group decision, getting along with others, and stress management.
- Students design and implement an action plan related to personal health practices, daily physical activity, and healthy eating.

SCIENCE

The development of increasingly scientifically literate individuals is one of the primary concerns of science education. Within that vision can be included skills such as effectively interpreting technical information, participation in the solution of problems that appeal to new scientific understandings, making informed decisions in relation to issues and trends in a technological society, better adapting to and accommodating rapid change, and welcoming the creation of new knowledge.

Manitoba Science Curriculum Conceptual Organizer

The following curriculum conceptual organizer summarizes the relationships among the Manitoba Foundations for Scientific Literacy.



Manitoba Foundations for Scientific Literacy

The "Five Foundations for Science Literacy" diagrammed in the Curriculum Conceptual Organizer are the primary underpinnings of the science curriculum, and provide the framework upon which both the general and specific learning outcomes are based.

Nature of Science and Technology

Students learn that science and technology are creative human activities with long histories in all cultures. Science is a way of learning about the universe. This learning stems from curiosity, creativity, imagination, intuition, exploration, observation, replication of experiments, interpretation of evidence, and debate over that evidence and its interpretations.

Science, Technology, Society, and the Environment (STSE)

Understanding the complex interrelationships among STSE is an essential component of fostering increased scientific literacy. By studying the historical context, students come to appreciate ways in which cultural and intellectual traditions have influenced the questions and methodologies of science, and how science, in turn, has influenced the wider world of ideas.

Scientific and Technological Skills and Attitudes

A science education that strives for developing scientific literacy must engage students in answering questions, solving problems, and making decisions. These processes are referred to as scientific inquiry, technological problem solving (the design process), and decision making.

Essential Science Knowledge

The subject matter of science includes theories, models, concepts, and principles that are essential to an understanding of life science, physical science, and the Earth and space sciences. Content is a vehicle for essential learning and it will be increasingly important for students to make interdisciplinary connections among the content areas of the sciences.

The Unifying Concepts

An effective way to create linkages within and among science disciplines is to use unifying concepts—the key ideas that underlie and integrate all science knowledge and extend into areas such as mathematics and social studies. Unifying concepts help students construct a more holistic, systems-related understanding of science and its role in society. In Manitoba science curriculum, the four 'unifying concepts' include: *Similarity and Diversity, Energy in Systems, Change Constancy and Equilibrium, and Systems Interactions.*

Kindergarten to Grade Four Overview

Within each grade, specific learning outcomes are arranged into groupings, referred to as clusters.

Cluster 0 comprises nine categories (*initiating; researching; planning; implementing a plan; observing, measuring, recording; analyzing and interpreting; concluding and applying; and reflecting on science and technology*) of specific learning outcomes that describe the skills and attitudes involved in scientific inquiry, the design process, or both. Overall skills and attitudes are integrated into clusters 1 to 4.

Clusters 1 to 4 are thematic and generally relate to the three science disciplines (*Life Science, Physical Science, and Earth and Space Science*).

Cluster	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
Cluster 0	Overall Skills and Attitudes	Overall Skills and Attitudes	Overall Skills and Attitudes	Overall Skills and Attitudes	Overall Skills and Attitudes
Cluster 1	Trees	Characteristics and Needs of Living Things	Growth and Changes in Animals	Growth and Changes in Plants	Habitats and Communities
Cluster 2	Colours	The Senses	Properties of Solids, Liquids, and Gases	Materials and Structures	Light
Cluster 3	Paper	Characteristics of Objects and Materials	Position and Motion	Forces that Attract or Repel	Sound
Cluster 4		Daily and Seasonal Changes	Air and Water in the Environment	Soils in the Environment	Rocks, Minerals, and Erosion

Grade Overview

In the science classroom, students are actively engaged in "doing" science and developing related skills and attitudes, as well as extending their understanding of science concepts.

Kindergarten

Students develop an understanding of the following science concepts.

- Cluster 1: Students' observations of trees, including their seasonal changes, are complemented by a study of basic parts and uses of trees.
- Cluster 2: Students develop their ability to describe their world in terms of colour.
- Cluster 3: By identifying, describing, and manipulating different kinds of paper and paper products found in the classroom, students are introduced to the concept of characteristics of materials.

Students develop the following skills, attitudes, and understanding about the nature of science.

- Students recognize that learning can come from observing and investigating.
- Students observe, using a combination of senses.
- Students construct an object or device to solve a problem, based on specific criteria.

Grade 1

Students develop an understanding of the following science concepts.

- Cluster 1: A study of living things provides opportunities for students to discover the many different forms life takes. Students observe similarities and differences among living things and develop an understanding of their general characteristics.
- Cluster 2: Students learn more about what the senses are, how they operate, and how they must be protected.
- Cluster 3: Students are introduced to the concept of materials by exploring various objects in their immediate surroundings.

- Cluster 4: By observing their environment, students become aware of changes that can occur within it, such as changes in temperature, wind, and light, and in plant and animal life.

Students develop the following skills, attitudes, and understanding about the nature of science.

- Students recognize that learning can come from observing and investigating.
- Students observe, using a combination of senses.
- Students construct an object or device to solve a problem, based on specific criteria.

Grade 2

Students develop an understanding of the following science concepts.

- Cluster 1: In their explorations of growth, students compare their own growth with the growth patterns of various animals, and they learn about the conditions needed to support healthy development.
- Cluster 2: Students begin to develop an understanding of matter by investigating properties of solids and liquids. Gases are also introduced through an examination of the properties of air.
- Cluster 3: The study of position and motion helps children develop a sense of space as well as an understanding of the relationship between stationary and moving objects, including themselves.
- Cluster 4: Students learn about the characteristics of air, and the various forms of water in the environment.

Students develop the following skills, attitudes, and understanding about the nature of science.

- Students recognize that learning can come from observing and investigating.
- With teacher guidance, students use tools to observe, measure, and construct.
- Students construct an object or device to solve a problem, based on specific criteria.

Grade 3

Students develop an understanding of the following science concepts.

- Cluster 1: The study of living things focuses on the characteristics and needs of plants and their growth pattern.
- Cluster 2: Students experience the design process as they manipulate and test materials, build structures, and select and use materials suitable to the task at hand.
- Cluster 3: Students focus on forces that act without direct contact: gravity, magnetism, and static electricity.
- Cluster 4: By examining soil, students discover that soil composition and characteristics vary.

Students develop the following skills, attitudes, and understanding about the nature of science.

- Students recognize that scientists develop explanations from observations and what they already know about the world.
- Students use tools to observe, measure, and construct.
- Students construct an object or device to solve a problem, based on specific criteria.

Grade 4

Students develop an understanding of the following science concepts.

- Cluster 1: Students begin to explore and compare ways in which plant and animal communities satisfy their needs in particular habitats.
- Cluster 2: Students begin to examine in more depth one form of energy they encounter on a daily basis—light. Students become familiar with the properties of light by investigating and observing how light interacts with various objects in the environment.
- Cluster 3: Students expand their concept of energy by examining sound. Understanding that sound is caused by vibrations helps students when they explore how sound travels, how the human ear is designed to detect sound, and how certain factors can modify the sound produced.
- Cluster 4: The study of rocks and minerals introduces students to geology. By examining various rocks and minerals found in the Earth's crust, students learn about their characteristics and properties.

Students develop the following skills, attitudes, and understanding about the nature of science.

- Students recognize that scientists develop explanations from observations and what they already know about the world.
- Students use tools to observe, measure, and construct.
- Students construct an object or device to solve a problem, based on specific criteria.

SOCIAL STUDIES

Social studies is the study of people in relation to each other and to the world in which they live. In Manitoba, social studies comprises the disciplines of history and geography, draws upon the social sciences, and integrates relevant content from the humanities. As a study of human beings in their physical, social, and cultural environments, social studies examines the past and present, and looks toward the future. Social studies helps students acquire the skills, knowledge, and values necessary to become active democratic citizens and contributing members of their communities, locally, nationally, and globally.

Citizenship as a Core Concept

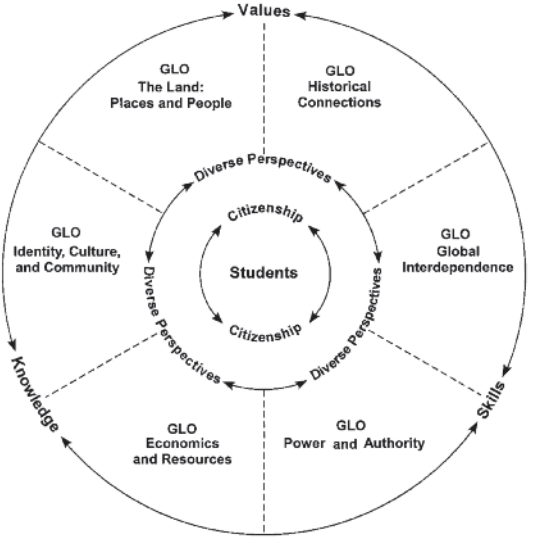
Citizenship is the core concept that provides the learning focus for social studies at all grades. To identify the skills, knowledge, and values that students will need as active democratic citizens, social studies must take into account the society in which students live and anticipate the challenges that they will face in the future.

Citizenship includes:

- Active democratic citizenship in Canada
- Canadian citizenship for the future
- Citizenship in the global context
- Environmental citizenship

Conceptual Map

The following conceptual map illustrates the core concept and other key components upon which Manitoba social studies curricula are based.



General Learning Outcomes (GLOs)

The following GLOs provide the basis for the specific learning outcomes for each grade.

Identity, Culture and Community

Students will explore concepts of identity, culture, and community in relation to individuals, societies and nations.

The Land: Places and People

Students will explore the dynamic relationships of people with the land, places, and environments.

Historical Connections

Students will explore how people, events, and ideas of the past shape the present and influence the future.

Global Interdependence

Students will explore the global interdependence of people, communities, societies, nations, and environments.

Power and Authority

Students will explore the processes and structures of power and authority, and their implications for individuals, relationships, communities, and nations.

Economics and Resources

Students will explore the distribution of resources and wealth in relation to individuals, communities, and nations.

Kindergarten to Grade 4 Overview

Specific learning outcomes (SLOs) are statements that describe the skills, knowledge, and values that students are expected to achieve in each grade.

Although the following two types of learning outcomes are presented separately, they are interdependent in the learning process and are intended to be integrated in the social studies classroom.

Social Studies Skills: The skills learning outcomes are intended to be integrated across the grades. They are organized into four categories:

- Skills for Active Democratic Citizenship
- Skills for Managing Information and Ideas
- Critical and Creative Thinking Skills
- Communication Skills

Knowledge and Values: The knowledge and values outcomes are grouped thematically into clusters to facilitate planning in each grade. The specific learning outcomes for the core concept of citizenship are integrated into the clusters.

Grade	Kindergarten *Being Together*	Grade 1 *Connecting and Belonging*	Grade 2 *Communities in Canada*	Grade 3 *Communities of the World*	Grade 4 *Manitoba, Canada, and the North: Places and Stories*
Skills Learning Outcomes	Skills Learning Outcomes (see 4 categories)	Skills Learning Outcomes (see 4 categories)	Skills Learning Outcomes (see 4 categories)	Skills Learning Outcomes (see 4 categories)	Skills Learning Outcomes (see 4 categories)
Cluster 1	Me	I Belong	Our Local Community	Connecting with Canadians	Geography of Canada
Cluster 2	The People Around Me	My Environment	Communities in Canada	Exploring the World	Living in Canada
Cluster 3	The World Around me	Connecting with Others	The Canadian Communities	Communities of the World	Living in Manitoba
Cluster 4				Exploring an Ancient Society	History of Manitoba
Cluster 5					Canada's North

Grade Overview

A brief description of the content and focus of a given grade is presented in the grade overview.

Kindergarten

Being Together

Students explore 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. Students are encouraged to express interest in the experiences of others and discover their connections to the people around them. As they explore their social and natural environments, they become aware that they live in a country called Canada, and begin to see themselves as part of a larger world.

- Cluster 1: Students explore what makes them unique, considering their abilities and interests, and identify groups and places that are important to them. They also examine rules and responsibilities and study basic needs.
- Cluster 2: Students identify the people who care for them and influence their lives.
- Cluster 3: Students study the world around them, exploring the physical environment of their local neighbourhood and learning that they live in a country called Canada.

Grade 1

Connecting and Belonging

Students explore connections and relationships that exist in groups and communities. They become aware of their responsibilities and rights and discover how they can contribute to the well-being of the groups and communities to which they belong. Students enhance their awareness of Canada as a country and consider the connections that bring people together in communities, past and present. As they learn about human diversity and interdependence, students begin to appreciate the importance of connecting and belonging.

- Cluster 1: Students examine their relationships with others as they explore groups in communities.
- Cluster 2: Students explore their environment.
- Cluster 3: Students explore their responsibilities and rights as members of communities and learn various ways people help and depend upon one another.

Grade 2

Communities in Canada

Students explore life in Canada, beginning with a study of their own community and moving outward to other communities. They become aware of their Canadian heritage as they discover stories of their local community's past and present. They explore ways in which people interact with the natural environment and come to understand the nature of communities. Students enhance their awareness of the cultural and geographic diversity of Canada through the study of an Aboriginal

community and one other Canadian community. Through this exploration, students discover the diversity and commonalities that link Canadian communities.

- Cluster 1: Students focus on various aspects of communities.
- Cluster 2: Students enhance their awareness of the cultural and geographic diversity of Canada through the study of one Aboriginal community and one other Canadian community.
- Cluster 3: Students explore different aspects of Canada, including national symbols, the origins of place names, and the presence and influence of diverse languages and cultural communities.

Grade 3

Communities in the World

Students explore ways of life in selected communities of the world, past and present. They are introduced to world geography and enrich their appreciation of global diversity as they explore communities and cultures. Students study physical, social, and cultural characteristics of two contemporary communities of the world, one of which is an indigenous community. They also explore life in an ancient society selected from Egypt, China, Japan, the Vikings, Incas, Mayas, or Aztecs. Through this exploration, students discover the connections linking diverse communities, past and present, and develop an appreciation of the enduring contributions of communities of the world.

- Cluster 1: Students examine the rights and responsibilities of Canadian citizens and explore their connections with other Canadians.
- Cluster 2: Students are introduced to world geography and the use of maps and images to represent geographic concepts such as borders, hemispheres, and the equator.
- Cluster 3: Students enrich their appreciation of global diversity as they explore communities and cultures in other places of the world.
- Cluster 4: Students explore life in one ancient society selected from a choice of Egypt, China, Japan, the Vikings, Incas, Mayas, or Aztecs.

Grade 4

Manitoba, Canada, and the North: Places and Stories

Students explore life in Canada, Manitoba, and Canada's North. They enhance their knowledge of Canada's physical and human geography and develop an awareness of Canadian citizenship and governance. Students explore the places, stories, and cultures of Manitoba and discover the diversity and shared experiences of Manitobans, past and present. They also develop an awareness of life in Canada's North through a study of the physical and human geography of one of the northern territories. Through this exploration, students develop a sense of belonging and enrich their understanding of citizenship in Manitoba and Canada.

- Cluster 1: Students study the physical geography of Manitoba and Canada, including the political boundaries and geographic regions of Canada.
- Cluster 2: Students enhance their awareness of Canada by examining various aspects of government, leadership, and power, including concepts related to citizenship and democracy. This study includes a focus on national, provincial, and territorial symbols, monuments, and commemorative days.
- Cluster 3: Students explore the physical and natural environment, people, places, and communities of Manitoba. They also consider Manitoba's contributions and links to the rest of the world.
- Cluster 4: Students explore important events and individuals from Manitoba's past.
- Cluster 5: Students explore one of Canada's northern territories. They consider the physical and human geography of the territory studied.