MIDDLE YEARS

COMPULSORY SUBJECT AREAS

The six compulsory subject areas that comprise the Middle 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.

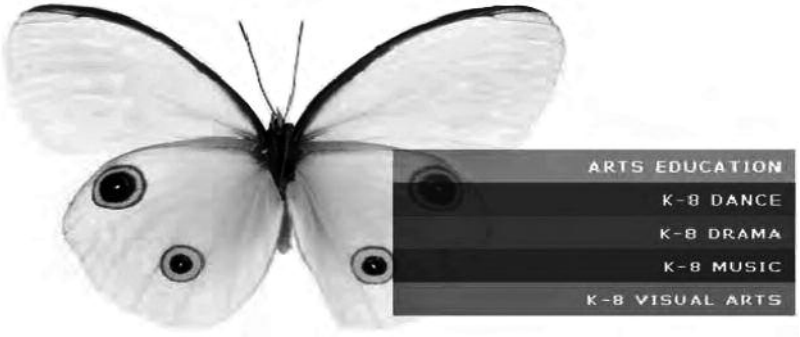
The individual arts (dance, drama, music, and the visual arts) are characterized by unique forms, each employing a variety of media. Students require substantive instruction and active participation in the arts to gain knowledge, skills, and understanding in one or more of the arts.

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 artworks and ideas from many cultural and historical contexts
- value and construct meaning from a wide range of artworks and experiences

The Butterfly



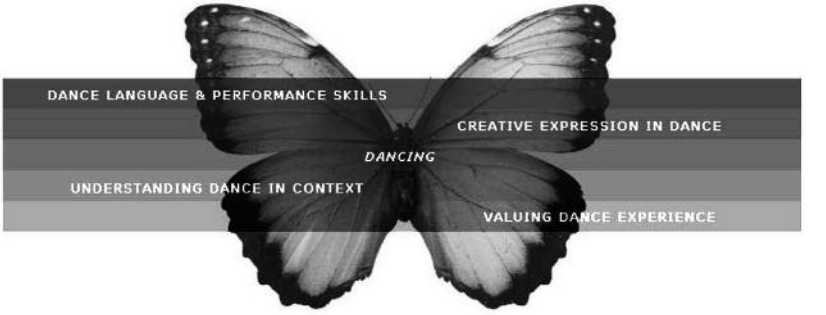
The four art disciplines (dance, drama, music, and the visual arts) are represented by the image of a butterfly.

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 from 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 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' dramatic work.

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.

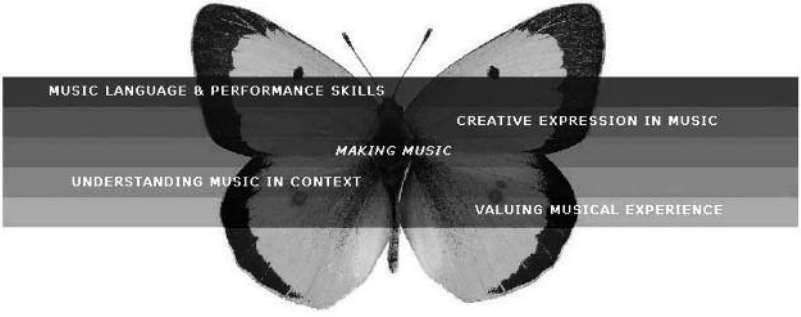
- Students experience and develop awareness of a variety of dramatic forms, styles, and traditions.
- Students demonstrate understanding of the roles, purposes, and meanings of drama in the lives of individuals and in communities.

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' dramatic work.
- Students construct personal interpretations of their own and others' dramatic work.
- 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 Visual 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

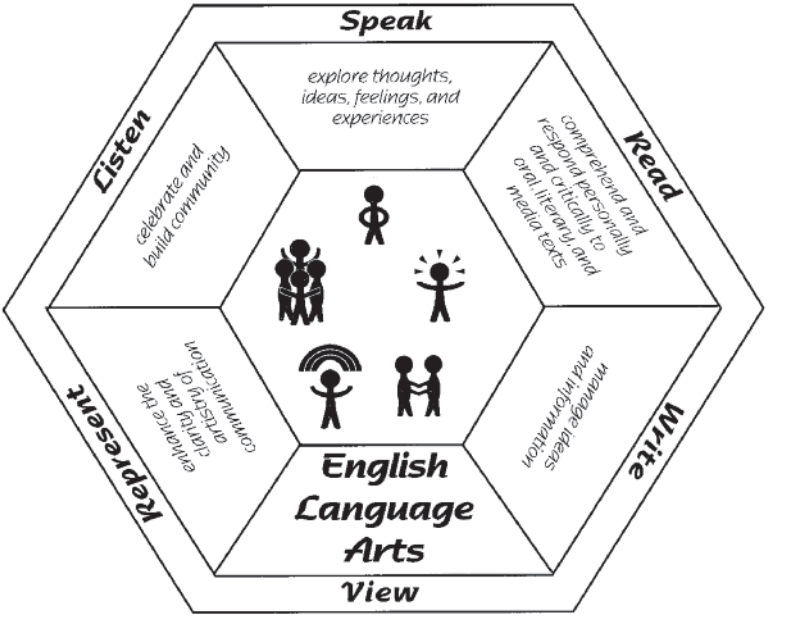
Throughout English language arts instruction, teachers engage students in rich learning opportunities that integrate reading, writing, speaking, listening, viewing, and representing (all six language arts). Students learn to understand and appreciate language, develop proficiency that generates confidence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

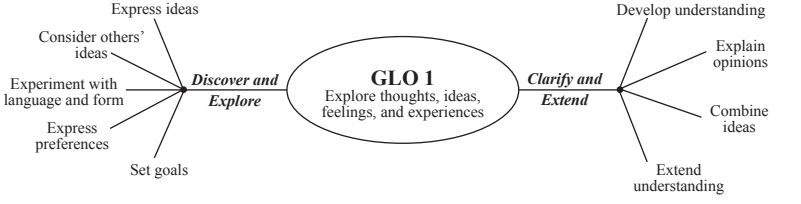
Reading, listening, and viewing provide access to rich literacy models that help students learn language and forms of expression. Effective Middle Years classrooms immerse students in a wide variety of texts that include oral, print, and other media communication. Writing, representing, and talking provide a variety of means for students to use language and forms to develop ownership of them.



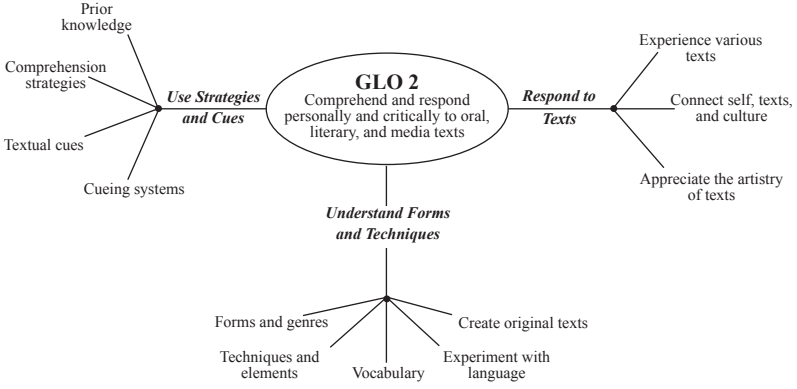
General Learning Outcomes

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.

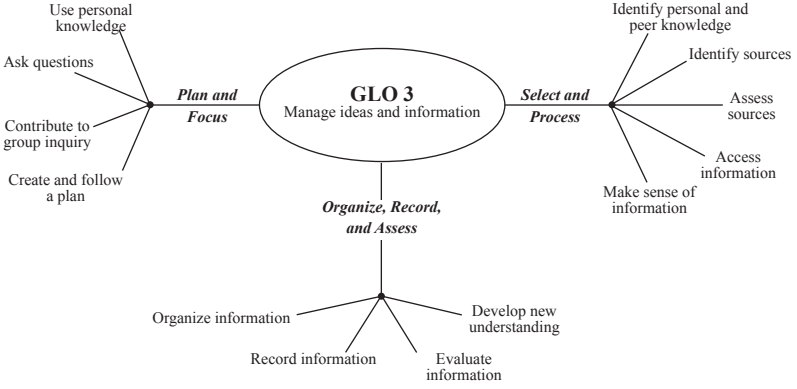
General Learning Outcome 1: Students will listen, speak, read, write, view, and represent to explore thoughts, ideas, feelings, and experiences.



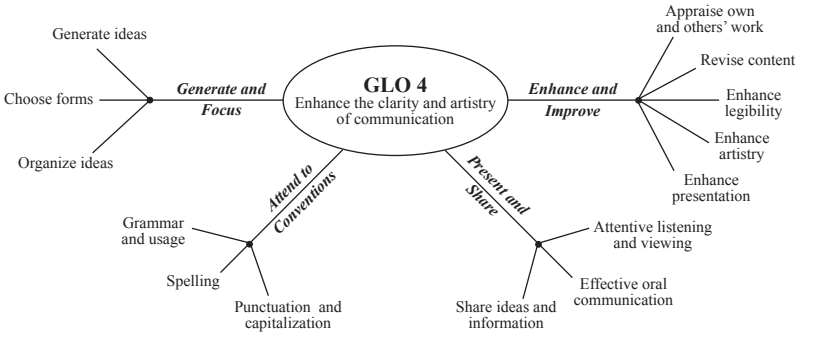
General Learning Outcome 2: Students will listen, speak, read, write, view, and represent to comprehend and respond personally and critically to oral, print, and other media texts.



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 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. In the classroom, single learning outcomes are rarely taught in isolation. Effective integrated language arts classroom activities typically address many learning outcomes simultaneously.

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, students learn to *listen*, *speak*, *view*, *represent*, *read*, and *write* 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.

Grade 5

- Students develop ideas by respectfully discussing their thoughts with others, and set personal goals for language learning. They predict; express opinions; listen actively; appreciate others' ideas; disagree politely; encourage others; ask extending questions; paraphrase; and identify strengths and areas for growth.
- Students learn a variety of strategies that help them understand and respond to what they read, see, and hear. They set a purpose; ask questions; infer; confirm or reject predictions and conclusions; identify key ideas; sequence events; and use a dictionary.
- Students begin to recognize different ways writers use language. They experience a variety of reading material such as poetry, articles, news reports, and documentaries.
- Students do research by determining their own questions and using a plan to gather and record useful information to answer their questions.
- Students organize and communicate ideas for different audiences and purposes through written, oral, and visual presentations. They tell personal stories; prepare book covers; write news stories, interviews, reports and inquiry projects, journals, and travelogues; and combine print and art.
- Students begin to develop the ability to revise and edit their work. They clarify ideas; improve spelling; write in complete sentences; and apply some rules for capitalizing and punctuating.
- Students assume a variety of roles, learn how to work productively, and set goals when they work in groups. They show self-control, include everyone, and share space and materials.

Grade 6

- Students develop clear points of view by respectfully discussing their thoughts with others, and assess and revise personal goals for language learning. They predict; share interpretations; listen actively; contribute ideas; appreciate others' ideas; disagree politely; encourage others; recall relevant information; clarify ideas; ask questions; identify strengths and areas for growth; and follow through.
- Students identify strategies that help them understand and respond to what they read, see, and hear. They ask questions; make notes; adjust their reading rate; summarize; outline; respond personally; remember ideas; understand how different reading materials are organized; and use a dictionary to determine word meaning in context.

- Students begin to recognize different ways writers use language, and explain how language choice improves understanding. They experience different kinds of reading materials, such as novels, biographies, autobiographies, myths, poetry, drawings, and prints.
- Students do research by determining their own questions, and use their own plan to gather and record useful information to answer their questions.
- Students experiment with a variety of ways to communicate ideas for different audiences and purposes through written, oral, and visual presentations. They participate in dramatizations and storytelling; give demonstrations; prepare greeting cards and collages; use technology; and write diaries, short stories, narratives, speeches, letters, and poetry.
- Students use a variety of skills and strategies to revise and edit their work. They eliminate unnecessary information; use descriptive language; use appropriate verb tenses and pronouns; and apply some rules for spelling, capitalizing, and punctuating.
- Students learn to identify and solve problems and help each other stay on task when working in groups. They take responsibility; are sensitive to others' feelings; monitor the group; show self-control; resolve conflicts and negotiate; and stay with the group until the task is complete.

Grade 7

- Students compare and summarize points of view by respectfully discussing their thoughts with others, and reflect on their language learning. They predict; express opinions; reach conclusions; listen actively; appreciate others' ideas; disagree politely; paraphrase and ask relevant questions to clarify ideas; correct misconceptions; provide feedback; identify strengths and areas for growth; and follow through.
- Students use a variety of appropriate strategies to help them understand and respond to what they read, see, and hear. They reflect on and assess meaning; skim; scan; close reading; state main ideas and supporting ideas in own words; understand the purpose of bold print and footnotes in information books; and understand the meaning of specialized vocabulary.
- Students compare different ways in which writers use language. They experience different kinds of reading materials such as journals, letters, and novels.

- Students do research in a variety of ways and learn to choose appropriate information sources when seeking answers to their questions.
- Students identify and use a variety of ways to communicate ideas for different audiences and purposes through written, oral, and visual presentations. They participate in role-play, language games, and simulations; create posters; prepare PowerPoint presentations; and write character sketches, legends, scripts, advertisements, speeches, short stories, and cartoon sequences.
- Students use a variety of skills and strategies to revise and edit their work. They create a variety of interesting sentences; use figurative language such as similes; eliminate repetition; and apply rules for spelling, capitalizing, and punctuating.
- Students learn to reach consensus when working in groups, and evaluate their own contributions and the group's effectiveness. They analyze and evaluate different viewpoints and information; and share perspectives and conclusions.

Grade 8

- Students assess their own points of view during respectful discussions with others, and independently reflect on their language learning. They listen actively; share perspectives and conclusions; appreciate others' ideas; disagree politely; paraphrase and ask in-depth questions to clarify ideas; correct misconceptions; assimilate information; provide feedback; celebrate success; identify areas that require improvement; and follow through.
- Students compare how they understand what they are reading, seeing, and hearing. They summarize main ideas, and understand the meaning of specialized and technical vocabulary.
- Students describe and respond to different ways writers use language. They experience different kinds of expression such as magazine articles, diaries, drama, advertisements, commercials, and videos.
- Students do research in a variety of ways and choose appropriate information sources when seeking answers to their questions.

- Students experiment with more sophisticated ways to communicate ideas, depending upon their audience and purpose, through written, oral, and visual presentations. They present mini-lessons, role-plays, impersonations, panel discussions, debates, dramatizations, and speeches; create collages and timelines; write biographies, letters to the editor, and newspaper articles; and prepare audiovisual presentations and documentary videos.
- Students use a variety of skills and strategies to revise and edit their work. They use several kinds of sentences that appeal to the audience; write effective descriptions; and apply rules for spelling, capitalizing, and punctuating.
- Students work cooperatively to maintain group harmony; evaluate their own contributions and the group's effectiveness; and set goals for improvement. They compare reactions; adjust perceptions; discuss responsibility; resolve conflicts and negotiate; and are assertive in acceptable ways.

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*, and *spatial sense*.

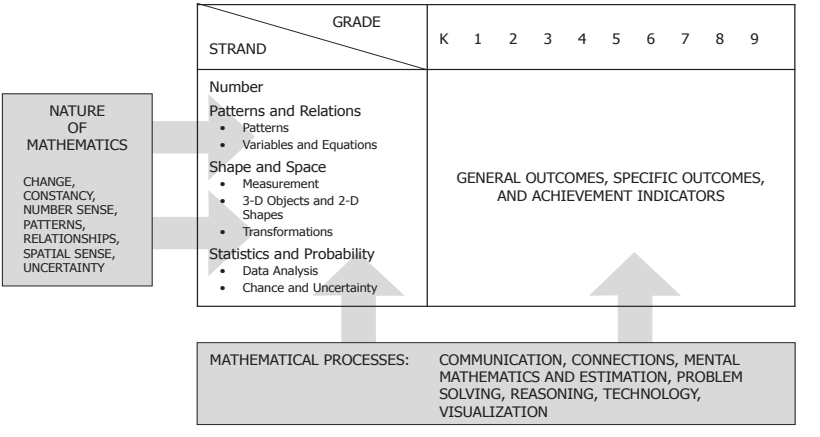
Mathematical Processes

Students use seven critical mathematical processes to build their understanding of mathematics and to support lifelong learning:

- Communication: Showing learning orally, through diagrams, and in writing
- Connections: Making connections among everyday situations, other subject areas, and mathematics concepts
- Estimation/Mental Mathematics: 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

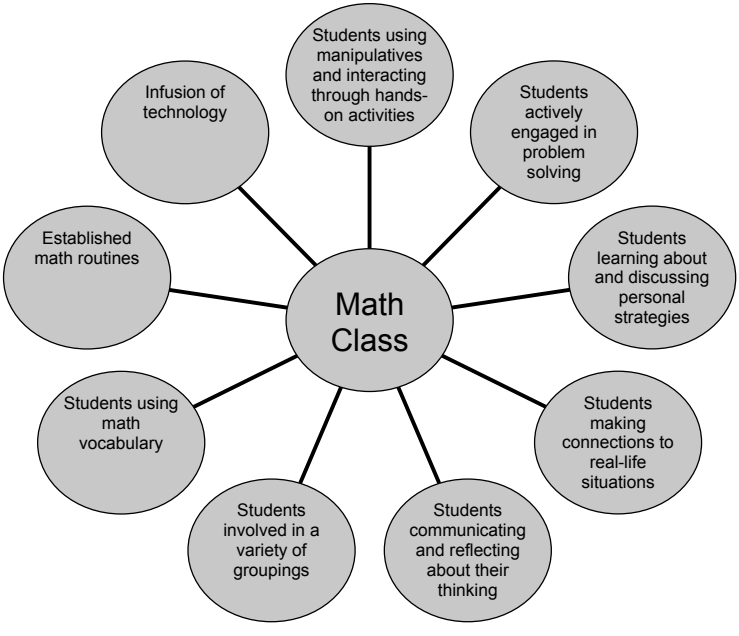
The following conceptual framework provides an overview of how the **nature of mathematics** and **mathematical processes** influence learning outcomes.



Programming

For balanced programming in mathematics, students should receive instruction through problem-based lessons. Students need to follow a progression of learning, going 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 (but not all) of the components that can be found in a mathematics classroom.



Strands and General Outcomes

The learning outcomes in the Manitoba Curriculum Framework 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 outcomes are overarching statements about what students are expected to learn in each strand/substrand. The general outcome for each strand/substrand is the same throughout the grades.

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

Number

General outcome

- Develop number sense.

Patterns and Relations

Patterns

General outcome

- Use patterns to describe the world and solve problems.

Variables and Equations

General outcome

- Represent algebraic expressions in multiple ways.

Shape and Space

Measurement

General outcome

- Use direct or indirect measurement to solve problems.

3-D Objects and 2-D Shapes

General outcome

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

Transformations

General outcome

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

Statistics and Probability

Data Analysis

General outcome

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

Chance and Uncertainty

General outcome

- 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.

Grade 5

- Students understand numbers to 100 000; demonstrate number sense for fractions and decimals; and solve problems using a combination of arithmetic operations on decimals and whole numbers.
- Students extend, create, and explain the growth of patterns using everyday language, charts, and rules.
- Students solve everyday problems using measurement concepts, appropriate tools, and results of measurements; solve problems related to objects and shapes by visualizing, building, and drawing; use coordinates to describe position; and describe motion as flips, slides, or turns.
- Students develop and use a plan to answer a question; gather, display, and interpret data; and predict outcomes, conduct probability experiments, and communicate the results.

Grade 6

- Students develop a number sense for decimals and common fractions, explore integers, and demonstrate a number sense for large numbers; and add, subtract, multiply, and divide whole numbers and decimals to solve and create problems.
- Students explain, generalize, and extend patterns using relationships; and solve equations with one unknown using informal strategies.
- Students solve problems involving perimeter, area, surface area, volume, and angle measurement; solve problems using symmetry and visualization; and create patterns and designs using symmetry, slides, and flips.
- Students develop and use a plan to collect, display, and analyze data gathered from appropriate samples; and use numbers to communicate the probability of single events from experiments.

Grade 7

- Students demonstrate a number sense for decimals, fractions, integers, and whole numbers; add, subtract, multiply, and divide decimals and integers to solve problems; and use rates, ratios, and percentages to solve problems.
- Students use expressions containing unknowns to represent patterns and to make predictions; and solve problems by using unknowns and equations.
- Students solve problems involving circles, time zones, perimeter, and area; link angles and properties of parallel lines; and create and analyze patterns and designs, using congruence, symmetry, slides, flips, and turns.
- Students develop and defend a plan to collect, display, and analyze data (using median, mode, mean, range, extremes, and quartiles); and create and solve problems using probability.

Grade 8

- Students demonstrate a number sense for decimals, fractions, integers, and whole numbers; add, subtract, multiply, and divide fractions to solve problems; and use rates, ratios, percentages, and proportion to solve problems.
- Students solve problems using patterns, unknowns, algebraic expressions, and graphs; and solve and verify two-step linear equations.
- Students generalize relationships in measurement; solve problems involving area, perimeter, surface area, and volume; link angle measures and parallel lines to the classification of four-sided shapes; create and analyze patterns in designs and architecture; and solve problems using proportion, scale, and networks.
- Students develop and use a plan to collect and display data, using technology; analyze the effect of changes in data; and compare theoretical and experimental probability of independent events.

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

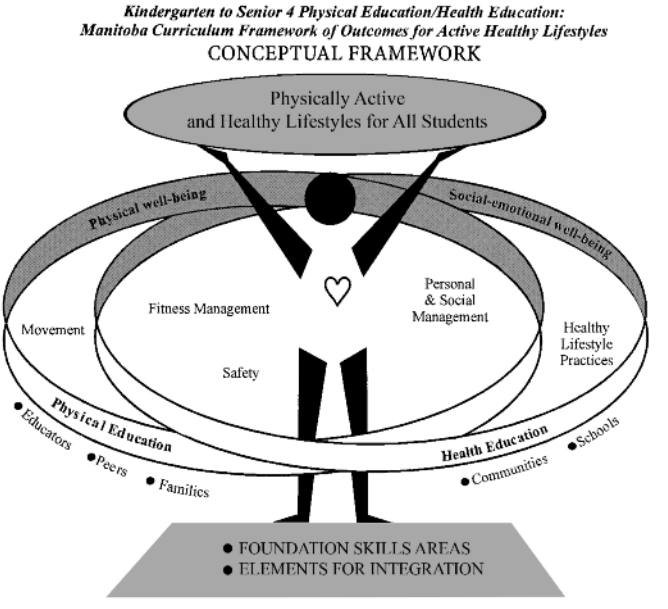
Aim and Vision

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** of the curriculum is *physically active and healthy lifestyles for all students*.

Conceptual Framework

The following conceptual framework illustrates the key components upon which the Manitoba PE/HE curriculum is based.



General Learning Outcomes

The curriculum identifies five general learning outcomes (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 following 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 the 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 a "professional" standard of care rather than "the careful and prudent parent" standard of care, especially in high-risk 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?

The following are current recommended resources related to physical activity safety:

- *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

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

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 refer to page 9 of *Kindergarten to Senior 4 Physical Education/Health Education: Manitoba Curriculum Framework of Outcomes for Active Healthy Lifestyles* (2000).

Grade Overview

In the combined PE/HE 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 GLOs.

Grade 5

- Students show an understanding of concepts related to balancing; designing routines showing contrast in levels, pathways, and directions; using game strategies involving a moving object; game rules and terminology; and fair play. Students perform and combine movement skills (e.g., running, hopping, throwing) to improve control related to sports/games, outdoor pursuits, and rhythmic/gymnastic activities, including innovative games.
- Students identify the benefits of exercise on the cardiovascular system and the factors that affect fitness development (e.g., planning, effort, motivation); and participate, with correct execution, in exercises or physical activities to monitor/maintain target heart rate and improve personal health-related fitness components.
- Students show an understanding of safety guidelines and behaviours related to themselves and others in a variety of physical activities, including stretching techniques and water-based activities; describe safety concerns in the community/media related to roads, vehicles, traffic, unsupervised areas, environmental conditions, violence prevention, personal safety, and available community supports; and participate safely in class activities.
- Students show an understanding of their own and others' feelings, the influence of others in decision making, responsible social behaviours, appreciation of diversity, qualities for developing friendships, anger management, and conflict-resolution steps; and demonstrate use of goal-setting process for a group goal, interpersonal skills for developing positive relationships, strategies to turn conflict into a win-win situation, and avoidance and refusal strategies.
- Students apply the knowledge and decision-making process involved in making healthy decisions in scenarios related to reproductive health and puberty, as well as avoidance of substance use and abuse.

Grade 6

- Students show an understanding of factors that affect movement skill development; game strategies in sending and receiving activities (e.g., throwing and catching, kicking and trapping); making up routines; adapting game rules to promote inclusion; simple offensive and defensive strategies; examples of fair play; and teamwork when playing and officiating. Students apply selected movement skills in striving for improvement related to sports/games, outdoor pursuits, and rhythmic/gymnastic activities, including multicultural games and dances.
- Students show an understanding of the health- and skill-related fitness components, the effects of exercise on the skeletal system, and proper stretching techniques; and participate in physical activities to enhance and monitor personal fitness and proper technique.
- Students determine emergency steps for bicycle accidents and effective safety practices related to physical activity, especially to promote inclusion, and appropriate dress for exercising outdoors in different conditions; show an understanding of safety practices, basic first-aid procedures, and ways to seek help in the home, school, and community, including while babysitting; and participate safely in class activities.
- Students show an understanding of characteristics for developing self-confidence, techniques for developing and revising personal goals and plans, behaviours that promote responsible decision making and build positive relationships, and strategies for managing stress and emotions; and assess and revise personal health goals, including the use of interpersonal skills, as well as decision-making, problem-solving, and stress-management skills.
- Students apply the knowledge and decision-making process involved in making healthy decisions in scenarios related to daily physical activity habits, personal hygiene practices, and nutrition.

Grade 7

- Students show an understanding of concepts, rules, terms, ethics, and skill/technique in a variety of physical activities, including territory/invasion games (e.g., soccer, ultimate) and striking/fielding games (e.g., baseball, cricket). Students design, perform, combine, and analyze movement skills in selected physical activities related to sports/games, outdoor pursuits, and rhythmic/gymnastic activities.

- Students describe exercises and how they affect muscular development, the principles of training, and the purpose of warm-up and cool-down activities; and demonstrate behaviours to attain personal fitness goals and the ability to record and interpret their own results.
- Students identify safety rules, routines, and procedures related to physical activity participation; specific equipment and facilities that promote inclusion; and water-based activities. Students show an understanding of dangerous situations, including school intruders, home invasion, hazing, Internet use, violence prevention, and abuse, as well as ways to seek help. Students participate safely in class activities.
- Students explain the mental skills and obstacles that affect goal achievement, and the skills related to dealing with change, making healthy decisions, being a leader, making new friends, and managing anger, conflict, and potentially dangerous situations; and demonstrate the ability to develop interpersonal skills, as well as conflict-resolution, decision-making/problem-solving, avoidance, and refusal strategies.
- Students identify the lifestyle practices for making healthy decisions related to substance use and/or abuse issues, developing relationships, and responsible sexual behaviour.

Grade 8

- Students show an understanding of concepts, rules, terms, ethics, and skill/technique in a variety of physical activities, including net/wall games (e.g., badminton, volleyball) and target games (e.g., bowling, curling). Students apply selected movement skills in a variety of physical activities related to sports/games, outdoor pursuits, and rhythmic/gymnastic activities.
- Students show an understanding of the health-related fitness components, the effects of exercise, the principles of training, the design of specific warm-ups, and the factors that affect personal fitness planning; and participate in fitness activities and assess progress and achievement of fitness goals, including time spent in target heart-rate zone.
- Students identify safety rules and procedures related to selected physical activities, including cycling and exercising; show an understanding of the laws and policies for safe communities, basic first-aid procedures, and ways to access community health information; and participate safely in class activities.

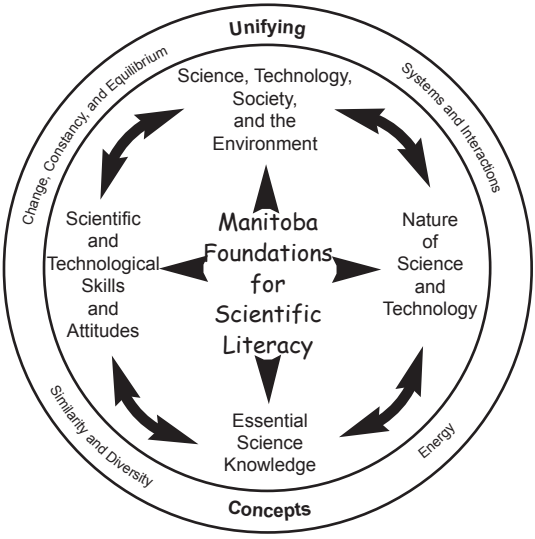
- Students show an understanding of setting and achieving goals, dealing with stereotyping, appreciating diversity, building positive relationships, and dealing with loss and grief, as well as stress and anxiety; and demonstrate competency in the use of interpersonal skills, as well as goal-setting, decision-making/problem-solving, and stress-management skills.
- Students examine the healthy lifestyle practices related to personal hygiene, active living, and nutrition for maintaining healthy bodies; and develop personal plans for active and healthy living.

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 the Manitoba science curriculum, the four unifying concepts are *Similarity and Diversity*, *Energy in Systems*, *Change Constancy*, and *Equilibrium and Systems Interactions*.

Grade 5 to Grade 8 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	Grade 5	Grade 6	Grade 7	Grade 8
Cluster 0	Overall Skills and Attitudes	Overall Skills and Attitudes	Overall Skills and Attitudes	Overall Skills and Attitudes
Cluster 1	Maintaining a Healthy Body	Diversity of Living Things	Interactions within Ecosystems	Cells and Systems
Cluster 2	Properties of and Changes in Substances	Flight	Particle Theory of Matter	Optics
Cluster 3	Forces and Simple Machines	Electricity	Forces and Structures	Fluids
Cluster 4	Weather	Exploring the Solar System	Earth's Crust	Water Systems

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.

Grade 5

Students develop an understanding of the following science concept:

- Cluster 1: The study of the human body focuses on the maintenance of good health.
- Cluster 2: Students deepen their understanding of the characteristics and properties of substances, and the changes that occur in substances in different solutions.
- Cluster 3: Students increase their understanding of forces through the study of simple machines.
- Cluster 4: Students learn that daily weather conditions are not the result of random occurrences, but of global systems that can be predicted on a short-term and a seasonal basis.

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

- Students recognize that there are some questions science can't answer.
- Students explore, with teacher guidance, the concept of a fair test, by planning and implementing experiments and drawing conclusions based on investigation results.
- Students construct an object or device to solve a problem, based on specific criteria.
- Students investigate positive and negative effects of science and technology, including effects on themselves, society, the environment, and the economy.
- Students develop a sense of responsibility for the welfare of other humans, other living things, and the environment.
- Students realize that science and technology are part of many hobbies and careers.

Grade 6

Students develop an understanding of the following science concepts:

- Cluster 1: Students develop an appreciation of the diversity of living things. The animal kingdom provides a specific focus with students investigating different types of animals to understand where they fit in the classification of things.
- Cluster 2: A study of the properties of fluids helps students to understand how flight can be achieved.
- Cluster 3: Students explore current and static electricity and compare and contrast the characteristics of each.
- Cluster 4: Students develop an understanding of the Earth in space, the solar system, and the role of space research programs in increasing scientific knowledge.

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

- Students recognize that there are some questions science can't answer.
- Students explore, with teacher guidance, the concept of a fair test, by planning and implementing experiments and drawing conclusions based on investigation results.
- Students construct an object or device to solve a problem, based on specific criteria.
- Students investigate positive and negative effects of science and technology, including effects on themselves, society, the environment, and the economy.
- Students develop a sense of responsibility for the welfare of other humans, other living things, and the environment.
- Students realize that science and technology are part of many hobbies and careers.

Grade 7

Students develop an understanding of the following science concepts:

- Cluster 1: Students investigate the complex interactions between organisms and their environment.
- Cluster 2: Students explore the nature of science by examining the development of scientific theories. One theory, the particle theory of matter, is investigated in detail.
- Cluster 3: Students explore a variety of natural and human-built structures and the forces that act on them.
- Cluster 4: Students investigate Earth's geology, including rock and mineral formation, changes in the landscape over time, and human use of geological resources.

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

- Students recognize that scientific knowledge has evolved and that technology has played a role in this process.
- Students plan and conduct experiments that constitute a fair test, including controlling variables, recording and analyzing data, and drawing a conclusion based on experimental results.
- Students construct an object or device to solve a problem, based on specific criteria.
- Students investigate societal, environmental, and economic impacts of science and technology.
- Students recognize the importance of maintaining a balance between the needs of humans and a sustainable environment.
- Students appreciate the contributions of Canadians to science and technology.

Grade 8

Students develop an understanding of the following science concepts:

- Cluster 1: Students investigate living things through a focus on cells and systems. Cell theory provides the basis for exploring cells and unicellular and multicellular organisms.
- Cluster 2: Students broaden their understanding of how light is produced, transmitted, and detected.
- Cluster 3: Students investigate the properties of fluids, including viscosity, density, and compressibility.
- Cluster 4: Students investigate the properties of water, its global manifestations, and its impacts.

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

- Students recognize that scientific knowledge has evolved and that technology has played a role in this process.
- Students plan and conduct experiments that constitute a fair test, including controlling variables, recording and analyzing data, and drawing a conclusion based on experimental results.
- Students construct an object or device to solve a problem, based on specific criteria.
- Students investigate societal, environmental, and economic impacts of science and technology.
- Students recognize the importance of maintaining a balance between the needs of humans and a sustainable environment.
- Students appreciate the contributions of Canadians to science and technology.

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

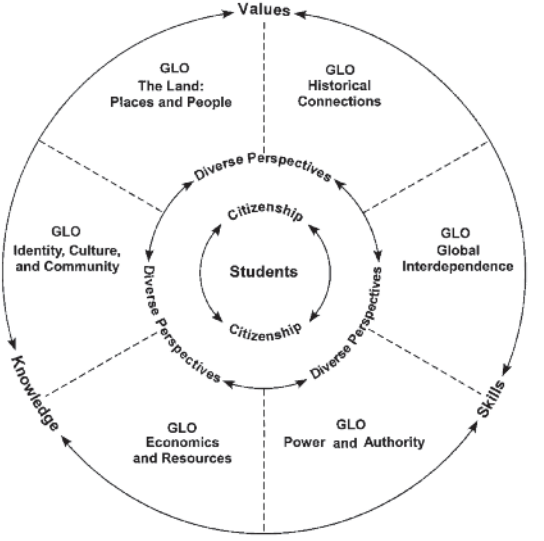
Citizenship is the core concept that provides the learning focus for social studies at all grades. To identify the skills, knowledge, and values that students will need as active democratic citizens, social studies must take into account the society in which students live and anticipate the challenges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

The following general learning outcomes 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.

Grade 5 to Grade 8 Overview

Specific learning outcomes 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	Grade 5 *People and Stories of Canada to 1867*	Grade 6 *Canada: A Country of Change (1867 to Present)*	Grade 7 *People and Places in the World*	Grade 8 *World History: Societies of the Past*
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)
Cluster 1	First Peoples	Building a Nation (1867 to 1914)	World Geography	Understanding Societies Past and Present
Cluster 2	Early European Colonization (1600 to 1763)	An Emerging Nation (1914 to 1945)	Global Quality of Life	Early Societies of Mesopotamia, Egypt, or the Indus Valley
Cluster 3	Fur Trade	Shaping Contemporary Canada (1945 to Present)	Ways of Life in Asia, Africa, or Australasia	Ancient Societies of Greece and Rome
Cluster 4	From British Colony to Confederation (1763 to 1867)	Canada Today: Democracy, Diversity, and the Influence of the Past	Human Impact in Europe or the Americas	Transition to the Modern World (Circa 500 to 1400)
Cluster 5				Shaping the Modern World (Circa 1400 to 1850)

Grade Overview

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

Grade 5

Peoples and Stories of Canada to 1867

Students focus on the stories of the peoples of early Canada and how they came to share this land. They explore ways of life of First Peoples before and after European contact and consider how Aboriginal cultures have influenced this country. Students examine early European exploration and consider the experiences of French and British settlers and of diverse cultural groups as they developed roots in this country. They become aware of the development of Canada as a nation, from a vast land rich in natural resources inhabited by Aboriginal peoples, to a colony of France and then of Britain, and, finally, as a confederation of provinces and territories. They study the fur trade and the rise of the Métis Nation, and examine cultural interaction and interdependence in early Canada. As students reflect upon the stories of people and events that shaped early Canada, they learn how the history and geography of this land influenced Canadians.

- Cluster 1: Students explore First Peoples' ways of life before and during their early contact with Europeans, which includes a focus on the daily life, leadership, culture, and beliefs of First Peoples communities.
- Cluster 2: Students examine causes and consequences of European exploration and settlement in early Canada.
- Cluster 3: Students explore the influence of the fur trade on the exploration, westward and northward expansion, and historical development of Canada.
- Cluster 4: Students examine life and citizenship in British North America.

Grade 6

Canada: A Country of Change (1867 to Present)

Students focus on people and events in Canada from Confederation to the present. They explore the changing character of this country as they examine territorial expansion, the role of immigration, and the evolving relationships between First Nations, Inuit, and Métis peoples and the Canadian government. Students learn about democratic processes and study the emergence of Canada as a culturally diverse, bilingual, and democratic society. They focus on Canadian questions regarding the environment, citizenship, identity, and diversity. Students also consider

contemporary world events that have shaped Canadian society. As they explore Canada's past and present, they enhance their awareness of democratic ideals and their understanding of Canadian citizenship.

- Cluster 1: Students examine life in post-Confederation Canada.
- Cluster 2: Students examine Canada as a newly emerging nation.
- Cluster 3: Students explore factors that have shaped contemporary Canadian life.
- Cluster 4: Students explore Canadian governance, citizenship, and identity, and the ideals, responsibilities, and rights of democracy.

Grade 7

People and Places in the World

Students focus on environmental, social, and cultural factors that affect quality of life for people in various places in the world. They study physical and human geography and global demographic trends. Students enhance their awareness of indigenous peoples and explore ways of life in other places. They examine how various factors shape ways of life in a contemporary society of Asia, Africa, or Australasia. They also focus on a contemporary society in Europe or the Americas as they consider the human impact of urbanization and technological change. Students become aware of the commonalities that link cultures and societies and the disparities that divide them. As they explore global challenges and opportunities, students become aware of the importance of international cooperation and begin to understand their roles as citizens in an increasingly interdependent world.

- Cluster 1: Students examine human and physical geography and their connections.
- Cluster 2: Students examine environmental, social, and cultural factors that affect quality of life for people in Canada and other places in the world.
- Cluster 3: Students examine how various factors shape ways of life in one contemporary society, selected from a choice of Asia, Africa, or Australasia.
- Cluster 4: Students examine the impact of human activities in one contemporary society, selected from a choice of Europe or the Americas.

Grade 8

World History: Societies of the Past

Students explore societies of the past and make connections between the past and present. They examine the origins of human societies from early hunter-gatherer ways of life to societies of the nineteenth century. They study significant people, ideas, and events of historical periods that have shaped the modern world and consider the implications of contact between diverse societies. As they explore selected past societies, students become aware of differing world views and the factors that influence change in societies. They assess the influence of the past on the present and develop an appreciation for the historical significance of past societies and civilizations.

- Cluster 1: Students explore concepts related to society, civilization, and world view.
- Cluster 2: It begins with a brief world overview, focusing on Mesopotamia, Egypt, the Indus Valley, China, and the Mayas and Incas from about 3500 to 500 BCE. Students then explore life in one early society, selected from a choice of Mesopotamia, Egypt, or the Indus Valley.
- Cluster 3: It begins with a brief world overview, focusing on China, Greece, Rome, Persia, and the Mayas and Incas, from about 500 BCE to 500 CE. Students then explore life in ancient societies of both Greece and Rome.
- Cluster 4: It begins with a brief world overview, focusing on China, Europe, the Middle East, Africa, Asia, and the Americas from about 500 to 1400. Students then explore individuals and events in selected places in the world during this time period.
- Cluster 5: It begins with a brief world overview, focusing on Europe, Africa, Asia, Australasia, and the Americas from about 1400 to 1850. Students then explore individuals, ideas, and events related to the Renaissance, the Protestant Reformation, global exploration, and the Industrial Revolution.