

2010

Saskatchewan Curriculum

Kindergarten



Kindergarten

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Introduction

This curriculum provides the learning outcomes that Kindergarten children are expected to know, understand, and be able to do by the end of the Kindergarten year. The characteristics of an effective Kindergarten program, included in this curriculum, guide educators in providing meaningful learning experiences for children. Through these experiences, children will be engaged learners as they achieve the learning outcomes in an integrated manner.

This Kindergarten curriculum provides:

- direction for supporting student achievement of the provincial Goals of Education as expressed through the Broad Areas of Learning
- support for student development related to the Common Essential Learnings as expressed through the Cross-curricular Competencies
- the characteristics and examples of an effective Kindergarten program
- the K-12 aim and goals of each Required Area of Study for education in Saskatchewan
- research-based learning outcomes and indicators
- an explanation of assessment and evaluation in Kindergarten.

For more detailed information about providing a positive Kindergarten experience for children, please refer to *Children First: A Resource for Kindergarten* (2009). It can be found, along with curriculum support materials, on the Saskatchewan Ministry of Education website.

Core Curriculum

Core Curriculum is intended to provide all Saskatchewan students with an education that will serve them well regardless of their choices after leaving school. Through its various components and initiatives, Core Curriculum supports student achievement of the Goals of Education for Saskatchewan. For current information regarding Core Curriculum, please refer to *Core Curriculum: Principles, Time Allocations, and Credit Policy* on the Saskatchewan Ministry of Education website.

For additional information related to some of the components and initiatives of Core Curriculum, please refer to the following policy and foundation documents (also available on the Ministry website):

- *Understanding the Common Essential Learnings: A Handbook for Teachers* (1988)
- *Objectives for the Common Essential Learnings (CEs)* (1998)

- *Renewed Objectives for the Common Essential Learnings of Critical and Creative Thinking (CCT) and Personal and Social Development (PSD) (2008)*
- *The Adaptive Dimension in Core Curriculum (1992)*
- *Policy and Procedures for Locally-developed Courses of Study (2010)*
- *Connections: Policy and Guidelines for School Libraries in Saskatchewan (2008)*
- *Diverse Voices: Selecting Equitable Resources for Indian and Métis Education (2005)*
- *Gender Equity: Policies and Guidelines for Implementation (1991)*
- *Instructional Approaches: A Framework for Professional Practice (1991)*
- *Multicultural Education and Heritage Language Education Policies (1994)*
- *Classroom Curriculum Connections: A Teacher's Handbook for Personal-Professional Growth (2001).*

Broad Areas of Learning

There are three Broad Areas of Learning that reflect Saskatchewan's Goals of Education. An effective Kindergarten program contributes to the Goals of Education by helping students achieve knowledge, skills, and attitudes related to these Broad Areas of Learning.

Lifelong Learners

In Kindergarten, children naturally wonder, discover, and explore their environments. Within these environments, children are encouraged to have a positive disposition towards, and a passion for, learning. This passion can be developed by offering children holistic learning experiences so they can apply their knowledge and skills in their daily life. As children engage in meaningful play and inquiry, they become more knowledgeable, confident, and creative lifelong learners.

Sense of Self, Community, and Place

In Kindergarten, purposefully designed environments enable children to develop a positive sense of self, while learning to respect their own and others' ways of seeing the world. A positive environment encourages children to interact with each other, explore who they might become, and learn to appreciate diverse perspectives. In Kindergarten, children continue to develop self-knowledge, an understanding of others, and learn to build community.

Related to the following Goals of Education:

- *Basic Skills*
- *Lifelong Learning*
- *Positive Lifestyle*

Related to the following Goals of Education:

- *Understanding and Relating to Others*
- *Self-concept Development*
- *Spiritual Development*

Engaged Citizens

Children in Kindergarten develop the courage, confidence, and commitment to be actively involved citizens through holistic learning opportunities. These learning opportunities enable children to become empowered to act as responsible citizens. As children are exposed to natural and constructed environments, they develop an appreciation for sustainable living. Children in Kindergarten seek to discover who they are, envision who they might become, imagine the possibilities, and provide new ideas for building a sustainable future.

Cross-curricular Competencies

The Cross-curricular Competencies are four interrelated areas containing understandings, values, skills, and processes that are considered important for learning in all areas of study. These competencies reflect the Common Essential Learnings and are intended to be addressed in each area of study at each grade level.

Developing Thinking

This competency addresses how people make sense of the world around them. Understanding develops by building on what is already known, and by engaging in contextual thinking, creative thinking, and critical reasoning. Play and inquiry in Kindergarten encourage children to explore ideas and possibilities, engage in divergent thinking, and to reflect on their learning.

Developing Identity and Interdependence

This competency addresses the ability to reflect upon and know oneself, and act autonomously and collaboratively as required in an interdependent world. It requires the learner to be aware of the natural environment, of social and cultural expectations, and of the possibilities for individual and group accomplishments. Achieving this competency requires understanding, valuing, and caring for oneself; understanding, valuing, and respecting human diversity and human rights and responsibilities; and understanding and valuing social and environmental interdependence and sustainability. Kindergarten children enjoy being able to make choices as part of their growing identity.

Developing Literacies

This competency addresses a variety of ways to interpret the world and express understanding through words, numbers, images, sounds, movements, and technologies in various situations. Being literate involves applying interrelated knowledge, skills, and strategies to learn

Related to the following Goals of Education:

- *Career and Consumer Decisions*
- *Membership in Society*
- *Growing with Change*

K-12 Goals for Thinking:

- *thinking and learning contextually*
- *thinking and learning creatively*
- *thinking and learning critically*

K-12 Goals for Identity and Interdependence:

- *understanding, valuing, and caring for oneself*
- *understanding, valuing, and caring for others*
- *understanding and valuing social, economic, and environmental interdependence and sustainability*

K-12 Goals for Literacies:

- *constructing knowledge related to various literacies*
- *exploring and interpreting the world through various literacies*
- *expressing understanding and communicating meaning using various literacies*

K-12 Goals for Social Responsibility:

- *using moral reasoning*
- *engaging in communitarian thinking and dialogue*
- *taking action*

Principles of Early Learning:

- *Children as Capable and Competent Learners*
- *Development and Learning as Holistic*
- *Relationships as Opportunities*
- *Environments as Stimulating and Dynamic*

and communicate with others. Communication and meaning making, therefore, require the use and understanding of multiple modes of representation. Using various literacies, Kindergarten children will interpret the world and express these understandings.

Developing Social Responsibility

This competency addresses how people contribute positively to their physical, social, and cultural environments. It requires the ability to contribute to the well-being of self, others, and the natural world, and participate with others in accomplishing shared goals. In Kindergarten, children continue to develop the skills needed to participate actively and responsibly in society. As positive attitudes and values, such as respect, integrity, responsibility, and commitment develop, children's self-efficacy and self-esteem increase, enabling them to make positive contributions within their physical, social, and cultural environments.

An Effective Kindergarten Program

An effective Kindergarten program builds on the principles of early learning and pays particular attention to the environment and the roles of conversation and play in children's learning experiences. The teacher facilitates inquiry through the children's play and is continually reflecting to ensure opportunities are provided to support and encourage holistic learning and deeper understanding. The teacher also has an effective process for observation, documentation, and interpretation.

A teacher planning for an effective Kindergarten program must be knowledgeable about what children should know, understand, and be able to do (the outcomes) by the end of the Kindergarten year. In planning for learning, the teacher must take into account the developmental level of each child in order to support achievement of the learning outcomes. Consideration must be given to the evidence that needs to be gathered to determine if the curriculum outcomes have been achieved.

Incorporates the Principles of Early Learning

The principles of early learning are generalizations, adapted from research, of how children learn. It is important that teachers consider the principles of competency, holistic development and learning, relationships, and the influence of environments when implementing a Kindergarten program.

Children are viewed as capable, competent thinkers who have multiple ways of knowing, doing, and understanding. Each child has different strengths, interests, and ways of learning. Children come to school

competent, inventive, and full of ideas that can be expressed in many ways. Together, children and adults co-learn and explore the interests of the children as they work towards achieving the outcomes.

When development and learning are viewed as holistic, children find identity, meaning, and purpose in life. Children are offered opportunities that support their holistic growth beyond their current level of knowledge, skills, interests, attitudes, and abilities.

Effective educators develop relationships that respect the dignity, worth, and uniqueness of each child. Relationships are opportunities for young children to create a sense of self, identity, and belonging while learning about the world around them.

Environments are carefully designed to be aesthetically pleasing and inspire children to wonder, ask questions, and be curious. By reflecting on and responding to their environments, children construct their own understanding of the world. Environments that promote the holistic nature of children's learning encourage independence, responsibility, and participation.

For more information related to the principles of early learning, refer to *Children First: A Resource for Kindergarten* (2009).

Actualizes the Distinguishing Features of an Early Childhood Education Program

The distinguishing features of environment, conversation, and play provide the foundation for children's learning. It is through these features that relationships among peers and with the educator can be established and strengthened.

In an effective Kindergarten classroom, a flexible, dynamic environment stimulates inquiry, facilitates play, and inspires curiosity. As children interact with their environment, they come to understand the world in which they live and learn. A well-planned environment can enrich and expand children's experiences, and support their growth and development.

Through meaningful conversations, respect and relationships are affirmed. As educators provide experiences that increase children's understandings through authentic questions about their play, offer ideas that extend their play, and encourage children to be self-directed learners, children learn to trust in their own ability to make decisions and to investigate new projects. When educators respect and acknowledge the knowledge, skills, and interests children bring to their play and learning, children are able to develop as confident learners.

Play provides children with opportunities to construct knowledge as they create and test theories, practise their skills, and make sense

Distinguishing Features of an Early Childhood Program:

- *Environment*
- *Conversation*
- *Inquiry-based Play*

of the world around them. Working together, children learn to use their language and social skills as they co-operate, negotiate, persist in tasks, and collaborate to sustain their play. Children who are engaged in play use their imagination, express their thoughts and feelings, develop large and fine motor skills, solve real problems, and use flexible and divergent thinking skills while developing language, literacy skills, and concepts.

For more information related to the distinguishing features of an early childhood education program, refer to *Children First: A Resource for Kindergarten* (2009).

Uses a Reflective Lens to Support Student Learning

Children begin exploring and creating from the moment they are born. As children explore, they better understand what they are exploring and seek opportunities to share this way of knowing and understanding. During this sharing, children build a sense of belonging and contributing. These are their personal experiences. To continue to provide children with this holistic learning experience, the effective educator will observe, assess, and plan daily experiences for children through the lens of exploring and creating, understanding and sharing, as well as belonging and contributing.

While the reflective lens assists educators in observing, assessing, and planning in a more holistic way, it is important that both educators and children learn within meaningful contexts that relate to their lives, communities, and the world. Educators and children need to identify big ideas and questions for deeper understanding central to the children's interests and the learning outcomes for Kindergarten.

Questions for deeper understanding are used to initiate and guide planning and give children direction for developing deep understandings about a topic. It is essential to develop questions that are evoked by children's interests and have potential for rich and deep learning. The process of asking questions can help children to grasp the important ideas that are situated at the core of a particular curricular focus or context. These broad questions will lead to more specific questions that can provide a framework, purpose, and direction for the learning activities in an inquiry, and help children connect what they are learning to their experiences and life beyond school.

Effective questions for deeper understanding in Kindergarten are the key to initiating and guiding children's investigations, critical thinking skills, problem solving, and reflection on their own learning. Effective questioning is essential for teaching and learning and should be an

Reflective Lens:

- *Belonging and Contributing*
- *Exploring and Creating*
- *Understanding and Sharing*

When driven by personally important questions, learners are persistent.

(Clyde, Miller, Sauer, Liebert, Parker, & Runyon, 2006, p. 219)

The learning extended far beyond the study . . . to much larger social and life issues - and it happened in ways I did not expect.

(Parker, 2007, p. 30)

integral part of planning in Kindergarten. Questioning should also be used to encourage children to reflect on their own learning.

For more information related to the reflective lens, refer to *Children First: A Resource for Kindergarten* (2009).

Draws Upon the Processes of Observation, Documentation, and Interpretation

Teachers in effective Kindergarten classrooms regularly observe, document, and interpret. Through this process, teachers gather information to guide scaffolding and to plan inquiries. This process provides a record of the children's learning and can be used for evaluation purposes.

Observation of children is important in order to plan, guide, and assess. It is critical to "watch" children to determine their intellectual, socio-emotional, physical, and spiritual knowledge and behaviours. Through play, children show what they know, understand, and are able to do. The information gained from these observations indicates development and scaffolding opportunities for educators. Observation makes educators more aware of children's thinking and informs educators how to support and extend the learning that is taking place. Observation provides a foundation for understanding what children are learning and what might be added to the environment to support further investigations.

Documentation is the process of displaying evidence of the children's learning. It involves organizing and displaying the information collected during observations, enabling the educator to explain the children's words, creations, constructions, and ways of sharing ideas. Documentation can be used to place children's learning in context, to affirm children's competence, and to guide future planning. When displayed, it also communicates children's experiences to members of the school community. Documentation can also be used to encourage both the children and teacher to develop reflective practices.

Interpretation involves pondering and drawing conclusions based on recorded evidence of children's learning in the context of early childhood education theory. Interpretations with respect to children's understandings, abilities, relationships, and self-concept can be made regarding each of the four dimensions (intellectual, physical, socio-emotional, and spiritual). As educators analyze the evidence, they develop theories about the children, teaching, and learning. It is from these interpretations that the educator will create further opportunities for children to develop, explore, test their theories, and effectively communicate to other children, parents, and the community.

For more information related to observation, documentation, and interpretation, refer to *Children First: A Resource for Kindergarten* (2009).

Through the documentation process, teachers learn "how to plan for possibilities, to hypothesize directions for projects, to express general goals, and to plan ways to provoke and sustain children's interests".

(Fyfe, 1994, pp. 27-28)

Inquiry-based planning is truly an inquiry in itself. By its very nature, it has to be. Just as an inquiry-based curriculum revolves around the questions of students, inquiry-based planning revolves around the questions of teachers as they consider their students' questions.

(Parker, 2007, p. 13)

Facilitates Inquiry through Play

Knowing that children, as active learners, solve real problems through their play, it is important for educators to be aware of the process of inquiry learning and how it can be a natural and important part of play. Inquiries can take place in a variety of environments, including those in the school setting and within the community.

Inquiry learning provides children with opportunities to test theories and build knowledge, abilities, and inquiring habits of mind that lead to deeper understanding of the world and human experience. Thoughtful questioning by the educator and a well-designed environment can lead children to further inquiry. Building on children's inherent sense of curiosity and wonder while drawing on their diverse backgrounds, interests, and experiences provides children with meaningful learning opportunities.

The inquiry process provides opportunities for children to become active participants in a collaborative search for meaning and understanding. Children who are engaged in inquiry:

- construct knowledge and deep understanding rather than passively receive information
- are directly involved in the discovery of new knowledge
- encounter differing perspectives and ideas
- transfer new knowledge and skills to new circumstances
- take ownership and responsibility for their ongoing learning.

(Adapted from Kuhlthau, Maniotes, & Caspari, 2007)

Effective Kindergarten programs can help children become engaged, confident learners who achieve the outcomes through the distinguishing features of environment, conversation, and play. Table 1 on the following page uses the three distinguishing features to give examples of what an effective Kindergarten program is and is not.

Reflects the Philosophy of each Subject Area Discipline

An effective Kindergarten program brings each subject area discipline to life. Although, what children should know, understand, and be able to do by the end of Kindergarten is specified in each of the subject area outcomes, the teacher needs to have a deeper understanding of how to plan a program based on what is important in each subject area discipline. This happens through continual reflection on 'why these specific outcomes?', and coming to know the philosophical underpinnings of each discipline.

Table 1. An Effective Kindergarten Program

Environment	
An Effective Kindergarten Program:	An Ineffective Kindergarten Program:
offers an environment that facilitates play, exploration, and discovery	focuses on paper-and-pencil tasks and rote learning
builds confident, independent, and responsible children	fails to encourage independence because activities do not support student decision making
reflects children’s work and conversations in displays throughout the classroom	expects children to follow the same pattern and lacks individuality and creativity
facilitates co-learning between teachers and children	is unable to promote co-learning because children’s thinking and understanding are not explored
believes development and learning are holistic, encouraging children to grow spiritually, physically, socio-emotionally, and intellectually.	focuses mostly on the intellectual development of children.

Conversation	
An Effective Kindergarten Program:	An Ineffective Kindergarten Program:
respects children’s abilities to confidently ask questions and contribute to discussions	has insufficient supports for reluctant children to participate in the discussions
supports conversations to discover the interests and prior knowledge of the children	pre-plans units and themes with little attention given to the interests and knowledge of children
invites guests to educate and assist the children in solving real-life problems related to the interests of the children	invites guests whose presentations rarely speak to the children’s interests
respects and values children’s prior knowledge and experiences.	gives little consideration to children’s prior knowledge and experiences.

Play	
An Effective Kindergarten Program:	An Ineffective Kindergarten Program:
actively engages children in learning and provides opportunities for numerous inquiries and activities	encourages children to sit quietly at their desks, while ‘doing’ worksheets and has all children working on exactly the same thing at the same time
extends learning and research to include the community and its resources	limits learning to within the classroom
encourages children in play that is meaningful and relevant because it relates to their questions and interests	assigns children to play at designated areas
expects children to construct knowledge and understandings	provides information without context
encourages children to express their creativity and ideas in a unique manner and to demonstrate multiple ways of knowing, doing, and learning	requires children to follow a rigid format and accepts only one type of answer or process
encourages children to explore their natural curiosity of the world around them	prevents children from exploring materials because many objects in the room are not to be touched
plans for meaningful, integrated learning and supports achievement of the outcomes through focusing on inquiry through play.	teaches each area of study in isolation and provides a series of disconnected activities.

Just as the characteristics of an effective Kindergarten program are provided in the Kindergarten curriculum, each subject area, in Grades 1-9, has also provided characteristics of developing a school program based on their discipline. Arts Education provides students with opportunities to explore and express their ideas through the arts and to investigate the work of local, national, and international artists. English language arts speaks to the focus on language; the importance of exploring a range of texts that address identity, community, and social responsibility; and the opportunity to create and share ideas in a variety of visual, multimedia, oral, and written forms. Health education focuses on engaging students in learning and promoting the health of self and others. Mathematics emphasizes the importance of developing a deep conceptual understanding of mathematics and the continuum of understanding from concrete to abstract. In science, students explore the natural and constructed worlds in an empirical manner. Social studies speaks to controversial issues and multiculturalism. Physical education focuses on achieving physical literacy.

All subject area disciplines expect that children will learn through meaningful contexts and creative and critical learning strategies. Engagement, student voice, inquiry, and deep understanding are common to designing programs in every discipline. When teachers understand the philosophy of each discipline, they are better able to plan and facilitate children's experiences.

An Effective Kindergarten Program in Action

In Kindergarten, the inquiry process can be informal such as play, or it can be more formal such as a guided inquiry. During informal inquiries, children explore, wonder, and investigate the natural or constructed environments as the teacher structures, observes, and scaffolds learning through making adaptations to the instruction, materials, and environment to support student achievement of the curriculum outcomes. In a formal inquiry, the children explore the natural and constructed environments while the teacher guides the process. These two approaches are illustrated in the following two stories of Teacher A and Teacher B.

There are many different ways to implement an effective Kindergarten program. The following stories describe how two teachers effectively plan for experiences that will engage children in learning. Through their instructional stances, both Teacher A and Teacher B facilitate students' opportunities to explore the essential question, 'what makes an object easier or harder to move on a surface?' Teacher A focuses on setting up the environment for children to explore, wonder, and

discover. Teacher B also creates a dynamic environment, but chooses to do a guided inquiry with his students. Both groups of students are working towards achieving the outcomes by the end of Kindergarten.

Teacher A

Teacher A sits down to plan a learning opportunity that will invite children to become engaged in achieving the selected outcomes for Kindergarten. She knows that the planning template on pages 30-31 in *Children First: A Resource for Kindergarten* (2009) asks teachers to provide children with play and inquiry-based learning opportunities in Kindergarten. As she begins to think about the environment, conversation, and play, she analyzes the outcomes to determine the types of knowledge required (i.e., factual, conceptual, procedural, and metacognitive). She thinks about the evidence she will look for to see if students have achieved these outcomes. Then she considers how to create a meaningful play environment for the children in her class.

After looking through the outcomes for each area of study, Teacher A decides to create an environment around the science outcome *FEK.1, Examine the effects of physical and magnetic forces, and light, sound, and heat energy, on objects in their environment*. Thinking about a big idea or essential question, she chooses to focus on one part of the outcome, and formulates the question, “What makes an object easier or harder to move on a surface?” Teacher A plans to look for opportunities during the children’s play to introduce vocabulary terms such as *force, friction, and surface*.

Teacher A wants to use an integrated approach so she reviews the outcomes from the remaining areas of study to keep them fresh in her mind as she interacts and has conversations with the children. The ELA outcome of *CCK.3, Use oral language to converse, engage in play, express ideas, and share personal experiences* (indicator - use oral language to engage in exploratory and imaginative play) stands out in her mind as one that is easily integrated as the children will be using oral language to converse, engage in play, express ideas, and share personal experiences daily. Teacher A writes herself a note to support oral language through thought-provoking materials and questions related to the science topic and to observe and record the oral language that is taking place during the play.

Teacher A wants to create an invitation to learn. She wants to construct an environment that will enable the children to explore the essential question, “What makes an object easier or harder to move on a surface?” Looking at the science outcome and indicators, she starts making a list of items to place in the environment that would enable children to achieve the outcome. Her list consists of such items as eave troughs and cardboard to use as ramps, building blocks, magnets, rough surfaces (e.g., carpet samples, sandpaper), smooth

Children have the right to use many materials in order to discover and to communicate what they know, understand, wonder about, question, feel, and imagine.

(Cadwell, 2003, p. 34)

surfaces (e.g., linoleum samples, plastic table cloths), metal objects, a water table and tuning forks, matchbox cars, marbles, and other toys that move. She places varying sizes of paper, paint materials, empty boxes and containers, clay, and a sand table in the environment.

As Teacher A continues to follow the sample planning form found in *Children First: A Resource for Kindergarten* (2009), she begins to think of conversations and questions that will potentially help scaffold the children's learning. Keeping in mind the integration of various areas of study, she notes the following as potential ideas for questions to ask and conversations to have with the children:

- Ask children questions that will encourage them to use language to describe the effects of applying forces of varying intensity on objects.
- Ask children to use personal directions and describe relative locations.
- Ask children what difference using more force makes on an object.
- What happens if you hit the tuning fork to make a sound and then touch it to the water table? What do you think is happening? Why? If you hit the tuning fork and put it in the water, what happens to the water? Why?
- What do you notice about the colour, lines, and forms of these toys? Why do you think they were made like this?
- What ideas do you have to share with your classmates about what they are doing?
- How do you know which one will travel the farthest? Why do you think it travelled the farthest?
- Show me how you can build a (toy, ramp, etc.) to increase or decrease the amount of friction.

In the final step of planning, Teacher A reflects on some ideas for a play/inquiry focus in case some children need suggestions to get them started. Teacher A thinks she could suggest the children pretend to be a salesperson trying to sell a toy or a safety officer teaching others about toy safety.

When the classroom and invitation have been set up, Teacher A observes the children interacting and playing with the materials in the environment. She intervenes to question, comment, or to manage the classroom. She jots down comments that the children make and notes particular actions and interactions that occur. The following are examples of how Teacher A connects the play activity to the outcomes.

Teacher A watches Alex use too much force as the toy flies off the table, hitting Wayne in the back. Teacher A walks over to Alex and says, "We've talked about safe and unsafe behaviours. Why is what just happened an unsafe behaviour?"

"I pushed it too hard and it went off the table and hit Wayne" was the sheepish reply from Alex.

"What could you do differently to play safely?"

"Don't push too hard."

"Anything else?"

"Ummm, play with it on the floor so it won't fly off the table and hit Wayne."

Later, as Teacher A sits down to document and interpret the observations, she turns to the outcomes to refresh her memory. She knows that the conversation she had with Alex had direct connections to the health outcome *USCK.2, Establish behaviours that support safety of self and others* (indicators - develop the language with which to wonder and talk about safety; recognize "safe" and "unsafe" behaviours and situations; investigate safety guidelines and rules to keep one safe at school and at home; learn and practise safety procedures in a variety of school and home contexts; describe what children can do to support the safety of self and others). The interaction showed that Alex is developing the language with which to wonder and talk about safety. He is able to recognize safe and unsafe behaviours and situations, and is able to describe what children can do to support the safety of self and others. Teacher A keeps this learning in mind as she considers what to show in the documentation panel.

As Teacher A reflects further on her conversation with Alex, she realizes she could have introduced him to the term *force*. She makes a mental note to talk to Alex when he is engaged in a future related activity to introduce force into his expanding vocabulary.

Teacher A hears a conversation between two children who are playing with matchbox cars.

Ann: "Oh, look how far this car went! It's the farthest."

Ben: "No, it's not the farthest. The red one can go farther."

Teacher: "How could you figure out which one goes the farthest?"

Ann: "Have a race."

Teacher A: "When you race, what are you trying to do?"

Ben: "You want to beat the other person."

Teacher A: "That's right, the goal is to cross the finish line first. You two were talking about which car goes the farthest. Is that the same as crossing the finish line first?"

Ben: "No."

Teacher A: "What other ideas do you have to help figure out which one went the farthest?"

Facilitating Discussions That Promote Inquiry:

- *turn the thinking back to the students*
- *focus on students' thinking*
- *probe to clarify and explore students' thinking and promote reflection*
- *redirect students to each other*
- *treat even routine procedures and social issues reflectively.*

(Adapted from Parker, 2007, p. 56)

Ben: "You can do one car then the other and see which one stops farther away."

Ann: "We can put tape on the floor where they stop. Or we can use a measure. My mom used one when she put up the shelf in my room."

Teacher A: "Putting tape or string on the floor would let you place the two beside each other to compare them (Math SSK.1). I'll get you a tape measure while you go get some string. Let me know which one works the best and why."

The children wanted to compare which object went the farthest, and Teacher A knows that falls under the math outcome of *SSK.1, Use direct comparison to compare two objects based on a single attribute, such as length including height, mass, volume, capacity* (indicator - compare the length or height of two objects and explain how they compare using the words *shorter, longer, taller, or almost the same*). She decides to add tape measures, rulers, tape, and a stopwatch to the environment to enable the children to explore this outcome in more detail. She also considers inviting the children to each bring to school one toy that moves so they can look at the designs of the toys, if interested.

As Teacher A walks away, she realizes that she could have also connected the discussion about the red car going the farthest with the arts education outcome of *CHK.1, Investigate arts expressions found in own homes and school community in relation to own lives* (indicator - describe arts expressions found in homes and community [e.g., music, heritage dances, puppet theatre, design of functional objects such as goalie masks, teapots, and running shoes]) and also posed the question, "How many fast things are red?" A discussion about the functional design of toys could include colour. She makes a mental note to draw the children's attention to this in the near future.

As the children's use of the terms *force* and *friction* start to become more common, Teacher A decides to expand the environment to the outdoors. She wants the children to explore force and friction using the swings to see who can swing the highest, and who can get the greatest number of swings back and forth from one push (without pumping legs). She also plans to take the scooters out as well so the children can explore the effects of force and friction as they push each other on the swings and use the scooters on a variety of surfaces. By taking the children to an outdoor environment, Teacher A is able to integrate the physical education outcome of *PEK.5, Vary, with guidance, the movement of the body through changes in space (personal space, general space, levels, directions, and pathways), effort (time and speed), relationships (body parts and shapes)*.

When Teacher A plans, she typically knows where the learning experience will start and continually evolves the plan to address the children's questions and provide scaffolds for those students who

require support to benefit from their explorations. While she has an idea of how to integrate the areas of study, she is always listening to the children to see where their interests are and planning how she can help them make connections to the learning required by the outcomes. When she documents her observations, Teacher A is always looking for more opportunities to provide new learning experiences and extend the children's understandings.

Teacher A observes, documents, and interprets the inquiry and learning that is taking place through play. As well, she continually reflects upon the environment, conversation, and play/inquiry that she has been observing. She reflects upon both her learning and that of the children, how she provided scaffolds to support student learning, and possibilities for future inquiries.

Teacher A regularly uses the reflective lens to ensure she is providing her children with a holistic experience within the context offered. Teacher A knows that daily opportunities for the children to develop a sense of belonging and to make contributions in their classroom, school, and communities are a part of providing holistic learning opportunities for the children. When children are given opportunities each day to explore and create, they are able to express their understandings of the world and develop their worldviews. Children who are provided opportunities to understand and share are able to develop their own ideas and express them in a variety of ways. Teacher A consciously uses the reflective lens to ensure the children are growing and developing holistically in each of the areas of the reflective lens.

Teacher B

Teacher B is sitting down to plan for Kindergarten. He has read *Children First: A Resource for Kindergarten* (2009) and wants to provide children with play and inquiry-based learning opportunities. As he begins to think about the environment, conversation, and play, he analyzes the outcomes to determine the types of knowledge required (i.e., factual, conceptual, procedural, and metacognitive). He thinks about the evidence he will look for to see if students have achieved the outcomes. Then he considers how he can create a meaningful inquiry for the children in his class. After looking through the outcomes for each area of study, Teacher B decides to create an environment around the science outcome *FEK.1, Examine the effects of physical and magnetic forces, and light, sound, and heat energy, on objects in their environment*. Thinking about a big idea or essential question, he chooses to focus on one part of the outcome, and formulates the question, "What makes an object easier or harder to move on a surface?" Teacher B plans to look for opportunities during the children's play to introduce vocabulary terms such as *force, friction, and surface*.

Reflective Lens:

- *Belonging and Contributing*
- *Exploring and Creating*
- *Understanding and Sharing*

A . . . common misconception is that outlined learner expectations [outcomes] set the ceiling, rather than the floor, for student understanding. (Clifford & Marinucci, 2008, p. 684)

Returning to the Kindergarten curriculum, Teacher B begins to consider ways he can integrate outcomes from the various areas of study. After some time, he decides to integrate the following outcomes:

Arts education *CPK.4, Create art works that express own observations and ideas about the world* (indicator - identify different lines, colours, textures, shapes, forms, and patterns in surroundings and art works, and apply this understanding in own work) and *CHK.1, Investigate arts expressions found in own homes and school community in relation to own lives* (indicator - describe arts expressions found in homes and community [e.g., music, heritage dances, puppet theatre, design of functional objects such as goalie masks, teapots, and running shoes]).

English language arts - *CCK.1, Create and compose various visual, multimedia, oral, and written texts that explore and present thoughts, ideas, and experiences* (indicators - contribute ideas and experiences and consider the ideas of others; share information and ideas with a group; explore ideas and information to make sense of experiences) and *CCK.3, Use oral language to converse, engage in play, express ideas, and share personal experiences* (indicator - use oral language to engage in exploratory and imaginative play).

Health education - *USCK.2, Establish behaviours that support safety of self and others* (indicators - develop the language with which to wonder and talk about safety; recognize “safe” and “unsafe” behaviours and situations; investigate safety guidelines and rules to keep one safe at school and at home; learn and practise safety procedures in a variety of school and home contexts; describe what children can do to support the safety of self and others).

Mathematics - *SSK.1, Use direct comparison to compare two objects based on a single attribute, such as length including height, mass, volume, and capacity* (indicator - compare the length or height of two objects and explain how they compare using the words shorter, longer, taller, or almost the same) and *SSK.3, Build and describe 3-D objects* (indicator - create a representation of a 3-D object using materials such as modelling clay and building blocks, and compare the representation to the original object; describe a 3-D object using words such as big, little, round, like a box, and like a can).

Physical education - *PEK.5, Vary, with guidance, the movement of the body through changes in space (personal space, general space, levels, directions, and pathways), effort (time and speed), and relationships (body parts and shapes).*

Social studies - *DRK.1, Describe the spatial relationships among people, places, and environments* (indicator - demonstrate understanding of personal directions (e.g., left/right, up/down, front/back) and relative location (e.g., near/far, above/below)).

Now that Teacher B knows the desired results, he begins to consider the assessment evidence. Knowing he wants the children to do a guided inquiry, he also wants to capture their imaginations. He develops a performance task and rubrics that would demonstrate a child's level of achievement of the outcomes. He plans on giving the students the task after they have had sufficient time to explore the environment, the concepts of force and friction, and the elements of art.

Teacher B's performance task is as follows: "You work for the Fun Times Toy Company. Your job is to create a toy that is able to move by force. This toy needs to look like a fun toy to play with, as we talked about earlier when we looked at the design of toys. As part of your job, you will have to tell your supervisor how you made the toy and why you made the choices you did. The forces and friction rubric explains what your supervisor will be looking for. You will have to complete a self-assessment rubric to decide if you did the best job you could do." Teacher B knows his students have used rubrics in the past, but he reviews the rubrics and explains what the icons on the self-assessment rubric mean. He will make some exemplars of toys so the class can clearly see what a toy that is a 'wow!' (4) looks like compared with a toy that is 'in progress' (1). The exemplars will help children to see what is expected of them before they start creating.

Table 2. Force and Friction Rubric

Essential Question "What makes an object easier or harder to move on a surface?"

	Force and friction	Design choices	Communication
4 Wow!	<input type="checkbox"/> confidently explains in detail the role force and friction have on the toy's movement abilities	<input type="checkbox"/> consciously makes design choices as a result of the elements of art (line, colour, texture, shape, form, and pattern)	<input type="checkbox"/> expands on topics; answers questions fully
3 Excellent	<input type="checkbox"/> explains the role force and friction have on the toy's movement abilities	<input type="checkbox"/> gives reasons for choices regarding the design of the toy that are related to some of the elements of art (line, colour, texture, shape, form, and pattern)	<input type="checkbox"/> remains on topic; uses sentence patterns; answers questions appropriately
2 Good	<input type="checkbox"/> explains the role that either force or friction have on the toy's movement abilities	<input type="checkbox"/> gives reasons for choices regarding the design of the toy	<input type="checkbox"/> expresses ideas, but not on topic; answers questions with one or two word answers
1 In Progress	<input type="checkbox"/> offers little to no explanation or an incorrect explanation of the toy's movement abilities	<input type="checkbox"/> is unable to explain design choices	<input type="checkbox"/> is unable to express ideas; unable to answer questions

Table 3. Self-Assessment Rubric

 I was respectful.			
 I explained force and friction.			
 I used art ideas when making my toy.			
 I gave an explanation.			

"I was thinking of the question as the planting of a seed." . . . Thinking of questions as "seeds to thinking" rather than queries requiring answers is a major change in a teacher's teaching practice. If the question is a "seed," it is asked for a different purpose than receiving a correct answer; it is asked to stimulate thinking and feeling.

(Berdoussis, Wong, & Wien, 2008, p. 43)

Looking at the outcomes and indicators, Teacher B starts making a list of items that are needed if the children are to achieve the outcomes in each area of study during the guided inquiry. The list includes such things as eavestroughs and cardboard to use as ramps, building blocks, magnets, rough surfaces (e.g., carpet samples, sandpaper), smooth surfaces (e.g., linoleum samples, plastic table clothes), metal objects, a water table and tuning forks, matchbox cars, marbles, and other toys that move. Additional items are clay, wood, hammer, nails, screws, screwdriver, string, springs, small wheels, tape measures, rulers, tape, empty boxes and containers, and a stopwatch. Elastics, old cookie sheets, wax paper, cans, empty boxes and containers, and duct tape were added to the long list of items he wanted in the environment.

Teacher B writes ideas for questions to ask and conversations that may take place during the guided inquiry:

- Ask children questions that will encourage them to use language to describe the effects of applying forces of varying intensity on objects.
- Ask children to use personal directions and describe relative locations.
- What difference does using more force on an object make?
- What happens if you hit the tuning fork to make a sound and then touch it to the water table? What do you think is happening? Why? If you hit the tuning fork and put it in the water, what happens to the water? Why?
- What do you notice about the colour, lines, and forms of these toys? Why do you think they were made like this?

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- What ideas do you have to share with your classmates about what they are doing?
 - How do you know which one will travel the farthest? Why do you think it travelled the farthest?
 - Show me how you can build a (toy, ramp, etc.) to increase or decrease the amount of friction.

Teacher B turns his planning to play/inquiry. He wants to guide his students in an inquiry into force and friction by giving them opportunities to play and explore these concepts. As they explore, he will introduce concepts and terms through conversation and questions. Because the performance task involves toy design, Teacher B wants to create opportunities for his students to inquire and explore the elements of art and toy design. He believes that a good starting point would be to have the children bring their favourite toys in and ask them questions to start them thinking about the design of the toys.

Teacher B sits down with his children to find out what they have to say about the essential question, 'What makes an object easier or harder to move on a surface?' As they brainstorm their theories, he records them on chart paper. The children are then free to explore and interact with the environment while Teacher B observes their play and inquiries. After the children have had time to interact, inquire, and explore the environment, Teacher B gathers them together to add, change, or delete their theories as he records the responses. Teacher B realizes that the children are ready to have the terms *force* and *friction* introduced and explained to them. Once again, the teacher observes as the children play and inquire in the environment, providing scaffolds as required.

Keeping the performance task in mind, Teacher B knows the children also need to explore the elements of art. He wants to draw their attention to this through the use of toys. He begins by drawing the children's attention back to the essential question, 'What makes an object easier or harder to move on a surface?' This time he refers to his observations and notices that one student said a ball was easier to move because it rolled. He reviews this conversation with the class and brings in the art concepts of line, colour, texture, shape, form, and pattern. He requests that each child bring a toy from home to help the class look at how art and design make an object easier or harder to move on a surface. He then gives the children time to explore, inquire, and interact with the environment and their new knowledge. Teacher B observes, documents, and interprets throughout this process.

While observing, documenting, and interpreting the children's play and inquiries, Teacher B decides it is time to give the children the performance task. Once again, he calls the class together to review

Research shows that children who engage in complex forms of socio-dramatic play have greater language skills than nonplayers, better social skills, more empathy, more imagination, and more of the subtle capacity to know what others mean. They are less aggressive and show more self-control and higher levels of thinking.

(Miller & Almon, 2009, p. 7)

Reflective Lens:

- *Belonging and Contributing*
- *Exploring and Creating*
- *Understanding and Sharing*

what they have learned about the essential question, force, friction, and the role the elements of art play in toy design.

He then proceeds to explain the performance task. He knows his children have used rubrics before so he presents them to the class along with the exemplars he created. He has decided to wait to introduce presentation skills until the children are ready to present their toys. Teacher B explains to the children that if they need any additional supplies to build their toys, they should ask him for his assistance.

Once again, Teacher B observes, documents, and interprets the inquiry and learning that is taking place in the classroom. As well, he continually reflects upon the environment, conversation, and play/inquiry that he has been observing. He reflects upon both his learning and that of the children, how he provided scaffolds to support student learning, and considered possibilities for future inquiries.

Teacher B regularly uses the reflective lens to ensure he is providing the children with a holistic experience. Teacher B knows that daily opportunities for the children to develop a sense of belonging and to make contributions in their classroom, school, and communities are a part of providing holistic learning opportunities for the children. When children are given opportunities each day to explore and create, they are able to express their understandings of the world and develop their worldviews. Children who are provided with opportunities to understand and share are able to develop their own ideas and express them in a variety of ways. Teacher B consciously ensures that his students can grow and develop in each area of the reflective lens.

The children in both Kindergarten classrooms had dynamic, stimulating environments in which to learn. Conversations were used by both teachers to determine the children's interests, prior knowledge, and scaffolds required to support learning. Teacher A and Teacher B both used play and inquiry as a key component of their Kindergarten program. The environments, conversations, and play were used in different ways, but children in both classes were able to work towards achieving the same outcomes.

Outcomes and Indicators

Outcomes are statements of what students are *expected to know, understand, and be able to do* by the end of a grade in a particular area of study. The outcomes provide direction for assessment and evaluation, and for program, unit, and lesson planning.

Critical characteristics of outcomes include the following:

- focus on what students will learn rather than what teachers will teach
- specify the skills and abilities, understandings, and/or attitudes students are expected to demonstrate
- are observable, assessable, and attainable
- are written using action-based verbs and clear professional language (subject-related)
- are developed to be achieved in context so that learning is purposeful and interconnected
- are grade and subject specific
- are supported by indicators which provide the breadth and depth of expectations
- have a developmental flow and connection to other grades, where applicable.

Indicators are representative of what students *need to know, understand, and/or be able to do* in order to achieve an outcome. Indicators represent *the breadth and the depth of learning* related to a particular outcome. The list of indicators provided in the curriculum is not an exhaustive list. Teachers may develop additional and/or alternative indicators but those teacher-developed indicators must be reflective of, and consistent with, the breadth and depth that is defined by the given indicators.

Arts education provides students with tremendous benefits including increased cognitive abilities, improved conflict resolution and other social skills, and higher levels of motivation and student engagement.

(Deasey, 2002 & Gazzaniga, 2008)

Arts Education

Aim and Goals of K-12 Arts Education

The K-12 **aim** of the Saskatchewan arts education curricula is to enable students to understand and value arts expressions throughout life.

The K-12 **goals** are broad statements identifying what students are expected to know and be able to do upon completion of a particular area of study, by the end of Grade 12.

The three goals for arts education students from Kindergarten to Grade 12 are:

- **Cultural/Historical (CH)** - Children will investigate the content and aesthetics of the arts within cultural, historical, and contemporary contexts and understand the connection between the arts and human experience.

This goal focuses on the role of the arts in various cultures, the development of the arts throughout history, and factors that influence contemporary arts and artists. It includes the historical development of dance, drama, music, and visual art within its social, cultural, and environmental context. In addition, the goal includes learning about the arts in contemporary societies, popular culture, and interdisciplinary forms of expression. The intent is to develop students' understanding of the arts as important forms of aesthetic expression, and as records of individual and collective experiences, histories, innovations, and visions of the future.

- **Critical/Responsive (CR)** - Children will respond to artistic expressions of Saskatchewan, Canadian, and International artists using critical thinking, research, creativity, and collaborative inquiry.

This goal enables children to respond critically and imaginatively to images, sounds, performances, and events in the artistic environment, including the mass media. Children become participants in the interactive process between artists and audience rather than passive consumers of the arts. Several processes are provided to help teachers guide discussion and encourage various responses to works of art; for example, visual art works, musical compositions, or dance and drama performances. The processes are intended to move students beyond quick judgement to informed personal interpretation, and can be used with each of the four strands and interdisciplinary works. These processes are described in "Responding to Arts Expressions", located on the Ministry of Education website. The intent of this goal is also to ensure that students are actively engaged with artists in their own communities and recognize that the arts are integral to the lives and cultures of every community.

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- **Creative/Productive (CP)** - Children will inquire, create, and communicate through dance, drama, music, and visual art.

This goal includes the exploration, development, and expression of ideas in the language of each strand or art form. Each art form involves students in different ways of thinking, inquiring, and conveying meaning. Each form involves students in creative processes and means of inquiry that require students to reflect on big ideas, and investigate compelling questions using the language, concepts, skills, techniques, and processes of that discipline. In order for an activity to be creative, students must be engaged in critical thinking, observation, and other forms of research, active exploration, and creative problem-solving processes. Children learn where ideas come from, and how ideas can be developed and transformed in each art form. Documentation is also an important part of the creative process, and can be used for purposes of idea development and refinement, assessment, and sharing learning with others. Reflection, both ongoing and summative, is an essential part of every creative process, and allows students to assess and evaluate their continued growth in their creative endeavours.

Kindergarten Arts Education

Children in Kindergarten need daily opportunities to use their imagination and observations to express and communicate ideas through the unique languages of the arts. They learn about themselves and others through critical reflection on their own work and a range of arts expressions in their communities.

In arts education, children further develop imagination, multiple literacies, critical and creative thinking abilities, and innovative problem-finding and problem-solving processes that can be applied in a variety of ways in their daily lives.

Arts Education Outcomes and Indicators

Focus: Exploring Our World

Cultural/Historical, Critical/Responsive, Creative/Productive

Goals of K-12 Arts Education:

- Cultural/Historical (CH) - Children will investigate the content and aesthetics of the arts within cultural, historical, and contemporary contexts and understand the connection between the arts and human experience.
- Critical/Responsive (CR) - Children will respond to artistic expressions of Saskatchewan, Canadian, and International artists using critical thinking, research, creativity, and collaborative inquiry.
- Creative/Productive (CP) - Children will inquire, create, and communicate through dance, drama, music, and visual art.

Creative/Productive (CP): Dance

Outcomes

CPK.1 Express ideas through exploration of the elements of dance including:

- action
- body
- dynamics
- relationships
- space.

Indicators

- a. Use movement to respond to stimuli from diverse sources such as stories, poems, observations, visual images, music, sounds, or objects.
- b. Ask questions related to the stimuli to contribute to a dance-making inquiry process (e.g., How does grass move when the wind blows?).
- c. Apply personal experience and imagination to express ideas in dance.
- d. Share dance ideas and movement responses with other children.
- e. Move to external beats and rhythms (e.g., round dance, jigging).
- f. Describe choices made when creating (e.g., fast or slow, roll or hop).
- g. Investigate what own body can do by exploring a variety of whole body and body part movements to express ideas.
- h. Repeat expressive movements and patterns created by self and others.
- i. Use different kinds of locomotor (travelling) and non-locomotor (non-travelling) actions (e.g., roll, jump, hop, turn, and pause) to express ideas.
- j. Use a variety of dynamic qualities such as *quickly* and *softly* in dance compositions.
- k. Recall that the dance space is called general space and that personal space is each child's "bubble" or self-space.

Outcomes**CPK.1 continued****Indicators**

- l. Move freely and safely in general space while maintaining self-space (not contacting).
- m. Explore different movement relationships (e.g., leading, following, near, far, over, under, in front, behind) with the teacher and other dancers.

Creative/Productive (CP): Drama**Outcomes****CPK.2 Explore a variety of drama strategies including:**

- role
- imaging
- parallel play
- journeys
- meetings.

Indicators

- a. Use sources such as stories, poems, observations, visual images, music, sounds, or objects to initiate drama work.
- b. Recognize that dramas are fictional situations.
- c. Contribute to the choice of topic ideas for the drama.
- d. Ask questions to contribute to inquiry on a drama topic (e.g., What might happen to animals if winter did not come this year? What if a messenger came to tell us that a giant was seen outside the town?).
- e. Listen to others and work co-operatively in dramatic contexts.
- f. Explore ideas in dramatic contexts and during reflection, drawing on own life experience.
- g. Use imagination during, and when reflecting on, the drama experience.
- h. Assume roles willingly in contextual drama.
- i. Listen quietly during imaging activities and become aware of thoughts and feelings that cannot be seen.
- j. Focus attention on own work, while respecting others, during parallel play and imaginary journeys.
- k. Contribute ideas during fictional meetings and other dramatic situations.
- l. Retell events and ideas that arise during the drama process.

Outcomes

CPK.3 Create sound compositions exploring the elements of music including:

- **repeating patterns**
- **beat (e.g., clapping and stepping, and counting)**
- **response to fast/slow paces**
- **high/low sounds**
- **loud/soft sounds**
- **sounds with distinct tone colours/timbres.**

Indicators

- a. Use sources such as stories, poems, observations, visual images, music, sounds, or objects to inspire music making.
- b. Observe sounds in a variety of settings, both natural (e.g., birds, animals, insects, wind, trees, water) and constructed (e.g., machinery, human-made objects in rural, urban, and reserve environments), and apply listening skills to own work.
- c. Use own words to describe elemental characteristics of sounds (e.g., high/low and soft/loud) from a variety of settings and from own compositions.
- d. Discuss how musicians and scientists use their senses to observe the world (e.g., listening to sound characteristics and patterns) and apply this understanding to own work.
- e. Create and imitate sounds by experimenting with the voice and instruments.
- f. Experiment with a variety of simple found objects and selected instruments, both pitched and unpitched.
- g. Create sounds to convey particular patterns, images, or expressive qualities.
- h. Describe basic decisions made in creating music expressions (e.g., sounds to be used in the piece, loud parts, soft parts, order of sounds).
- i. Distinguish between own speaking voice and singing voice.
- j. Begin to develop the ability to match pitch.
- k. Clap, play, and move to beats and rhythmic patterns (e.g., in nursery rhymes, music, teaching stories, and legends).
- l. Contribute to inquiry about elements of music (e.g., What sounds can we combine to make different patterns/rhythms?).
- m. Demonstrate awareness of patterns of high/low and loud/soft sounds in own speech and music.
- n. Identify and use sounds and instruments with distinctly different tone colours/timbres (e.g., triangle versus tambourine).

Outcomes

CPK.4 Create art works that express own observations and ideas about the world.

Indicators

- a. Identify different lines, colours, textures, shapes, forms, and patterns in surroundings and art works, and apply this understanding in own work.
- b. Use diverse sources such as stories, poems, observations, visual images, music, sounds, or objects as inspiration for art making.
- c. Discuss how artists and scientists use their senses to observe and record characteristics of plants, animals, and humans in the environment (e.g., observing nature, sounds, movement, and visual details).
- d. Recognize the difference between the natural and built environments.
- e. Ask questions about own environment to contribute to inquiry through visual art (e.g., Why do birds have different coloured feathers? How can we use these art materials to make interesting birds? Do some birds have special meaning in some cultures? How can we use feathers in our art? Are there some feathers that we cannot use, and why?).
- f. Select from a variety of art materials, tools, and paper size when creating a visual art expression (e.g., found objects, digital cameras, household items, wire).
- g. Observe and identify details of the physical appearance of plants, animals, people, and objects, and create visual representations.
- h. Demonstrate co-ordination and development of skills in the use of simple visual art tools and materials.
- i. Discuss choices made in creating art works.
- j. Observe and identify the concepts of *big* and *small*.
- k. Observe and identify *top*, *bottom*, *front*, *back*, and *sides*.
- l. Observe and identify objects from different viewpoints (e.g., near, far, high, low) and describe what is seen.

Critical/Responsive (CR): All Strands

Outcomes

CRK.1 Respond to arts expressions verbally and non-verbally (e.g., through movement or drawing).

Indicators

- a. Ask questions and describe thoughts and feelings evoked by arts expressions in a variety of ways (e.g., respond through movement, drawing, talking, clapping, or sound compositions).
- b. Tell stories, recall prior experiences, and make personal and imaginative connections to arts expressions.
- c. Demonstrate curiosity when viewing and responding to dances, dramatic presentations, music, and visual art expressions (e.g., contemporary, historical, cultural, and popular).
- d. Use senses and discuss observations about the effects of various arts expressions (e.g., music that is calming, dance that is lively, drama that shows emotions, visual art that looks peaceful).
- e. Show interest in knowing more about arts expressions and artists.
- f. Observe and respond to a range of arts expressions, incorporating age-appropriate discussion of arts elements and principles (e.g., lines and colours in picture book illustrations, rhythm or dynamics of a song, use of space in a dance, variety of roles in a drama).

Cultural/Historical (CH): All Strands

Outcomes

CHK.1 Investigate arts expressions found in own homes and school community in relation to own lives.

Indicators

- a. Describe arts expressions found in homes and community (e.g., music, heritage dances, puppet theatre, design of functional objects such as goalie masks, teapots, and running shoes).
- b. Demonstrate awareness that artists use different kinds of materials, tools, instruments, and technology.
- c. Investigate various kinds of artists working in own community (e.g., musicians, visual artists, filmmakers).
- d. Collect, discuss, and document stories, images, ideas, and/or emotions in response to the work of artists in own community (e.g., collect photos, music, and objects to create a class display about local arts and artists).
- e. Learn songs, music, and dances of various styles and cultural groups associated with home and school community.

Outcomes

CHK.2 Recognize a wide variety of arts expressions as creations of First Nations and Métis peoples.

Indicators

- a. Observe and identify differences between First Nations Powwow dances and drum groups versus Métis jigging and fiddling.
- b. Observe and describe Powwow regalia, beadwork, and other traditional forms of art.
- c. Observe and discuss arts expressions of First Nations and Métis musicians, actors, and visual artists.
- d. Demonstrate awareness that drummers, singers, dancers, and other artists play important roles in First Nations and Métis cultures.

English Language Arts

Aim and Goals of K-12 English Language Arts

The K-12 **aim** of the Saskatchewan English language arts curricula is to help students understand and appreciate language and to use it confidently and competently in a variety of situations for learning, communication, work, life, and personal satisfaction.

The K-12 **goals** are broad statements identifying what students are expected to know and be able to do upon completion of study in a particular subject (e.g., English language arts) by the end of Grade 12. The three K-12 goals of the Saskatchewan English language arts curricula are:

- **Comprehend and Respond (CR).** Children will extend their abilities to view, listen to, read, comprehend, and respond to a range of contemporary and traditional grade-level texts in a variety of forms (oral, print, and other texts) from First Nations/Métis, and other cultures for a variety of purposes including for learning, interest, and enjoyment.
- **Compose and Create (CC).** Children will extend their abilities to speak, write, and use other forms of representation to explore and present thoughts, feelings, and experiences in a variety of forms for a variety of purposes and audiences.
- **Assess and Reflect (AR).** Children will assess their own language skills; discuss the skills of effective viewers, representers, listeners, speakers, readers, and writers; and set goals for future improvement.

Focus on Language

The study of English language arts (viewing, listening, “reading”, representing, speaking, and “writing”) and the elements and conventions associated with each language cueing system (i.e., pragmatic, textual, syntactic, semantic/lexical/morphological, graphophonic, and other) enables children to understand and appreciate language and to use it in a variety of situations for communication, for learning, and for personal satisfaction.

An effective Kindergarten program that develops children’s facility with language provides children with opportunities to:

- **learn to use language** in a variety of meaningful ways, considering and determining their audience, purpose, and situation
- **learn about language** as a necessary tool for thinking and communicating effectively, considering the cues and conventions of language

Good language and literacy skills lay the foundation for social, academic, economic, personal, and national success.

(Jamieson & Tremblay, 2005, p.1)

-
- **learn through language** by applying their knowledge of language in their viewing, listening, reading, representing, speaking, and writing experiences.

Language conventions are accepted practices or agreed-upon rules in representational, spoken, or written language. Cueing systems are sets of cues or clues built into the structure or patterns of texts. Using language cues and conventions, students construct, confirm, and communicate meaning. Pragmatic cues and conventions refer to the style of language that is used in a given context and take into consideration the purpose, situation, and audience. The pragmatic cueing system is often considered to be the social aspect of language. Textual cues and conventions refer to the type or kind of text and the features that are associated with its organization. Syntactical cues and conventions refer to the structure (word order) and parts of sentences, and the rules that govern the sentences (e.g., subject-verb agreement). Semantic and lexical cues and conventions refer to the meaning and structure of words. The lexicon of a language includes all the words or vocabulary of that language that are used or understood by a particular person or group. Graphophonic cues and conventions refer to the sounds of speech (phonology) and how these sounds are organized in patterns, pronounced, and graphically represented (spelled). Other cues and conventions associated with supporting understanding and effective communication include printing, font choices, graphics, illustrations, layout, and additional enhancements such as colour, sound, and movement.

Kindergarten English Language Arts

Each of the three K-12 goals for English language arts has a set of outcomes for Kindergarten. The Kindergarten experience should provide many opportunities for children to develop their language skills and strategies in all six language arts strands. As children view and represent, listen and speak, and explore emerging reading and writing experiences, they will have many opportunities to use and learn about language in meaningful ways. The Kindergarten program provides meaningful contexts for children to use and learn about language as children question and inquire about themselves, others, and the constructed and natural environments.

In Kindergarten, children are building the foundations for learning to “read” and “write”. They are developing basic concepts of print but are not expected to be proficient “readers” or “writers” of print texts. Kindergarten children are beginning to engage in and experiment with “reading” (e.g., listening to and discussing books and understanding that print carries a message) and “writing” (e.g., using known letters or approximations of letters to represent written language such as their name).

A “text” is any form of communication, whether oral, written, visual, or multimedia (including digital media) with a definable communication function (e.g., to entertain, to inform).

English Language Arts Outcomes and Indicators

Comprehend and Respond, Compose and Create, Assess and Reflect

Goals of K-12 English Language Arts:

- **Comprehend and Respond (CR).** Children will extend their abilities to view, listen to, read, comprehend, and respond to a range of contemporary and traditional grade-level texts in a variety of forms (oral, print, and other texts) from First Nations/Métis, and other cultures for a variety of purposes including for learning, interest, and enjoyment.
- **Compose and Create (CC).** Children will extend their abilities to speak, write, and use other forms of representation to explore and present thoughts, feelings, and experiences in a variety of forms for a variety of purposes and audiences.
- **Assess and Reflect (AR).** Children will assess their own language skills; discuss the skills of effective viewers, representers, listeners, speakers, readers, and writers; and set goals for future improvement.

Comprehend and Respond (CR)

Outcomes

CRK.1 Comprehend and respond to a variety of visual, oral, print, and multimedia texts that address identity (e.g., exploring interests), community (e.g., belonging), and social responsibility (e.g., contributing).

Indicators

- a. View, listen to, comprehend, and respond to a variety of texts (including First Nations and Métis resources) that address identity.
- b. Make connections among oral language and personal experiences.
- c. Share personal experiences and family traditions related to texts.
- d. Relate aspects of stories and information to personal feelings and experiences.
- e. Use illustrations, photographs, video programs, objects, and auditory cues to understand ideas and information.
- f. Relate a personal experience as a result of a picture, photograph, or model.
- g. Satisfy natural curiosity by engaging in inquiry:
 - wonder about new ideas and observations
 - discuss personal knowledge of a topic
 - ask questions to satisfy personal curiosity and information needs
 - identify self and others as sources of information
 - seek information from others including people at school, at home, and in the community including Elders and Knowledge Keepers
 - compare gathered ideas and information to personal knowledge
 - share learning and information-gathering experiences
 - compose with a scribe
 - indicate whether or not information is useful for answering questions.

Outcomes

CRK.2 View and interpret the basic message of visuals and objects in a variety of texts including models, photographs, dramas, dance creations, and videos.

Indicators

- a. Identify key idea(s) and purpose of pictures, graphics, models, and photographs.
- b. Use strategies to construct and confirm meaning when viewing:
 - make connections to background knowledge (before)
 - identify important ideas and events (during)
 - recall (after).
- c. Understand and apply language cues and conventions to construct and confirm meaning when viewing:
 - recognize the variations of language use at home, on the playground, and in the classroom (pragmatic)
 - describe characteristics of fiction texts (textual)
 - develop a sense of sentence (syntactic)
 - show curiosity in words and their sounds (lexical/semantic)
 - develop phonological awareness (graphophonetic)
 - recognize how gestures and body language communicate part of the message (other cues and conventions).
- d. Volunteer personal experiences and feelings prompted by various visuals.
- e. Identify supporting details.
- f. Compare similarities and differences such as colour, type of visual, and object placement between various texts such as pictures, photographs, and 3-D models.
- g. Interpret emotions portrayed in visual texts including models, photographs, dramas, dance creations, and video programs.
- h. Describe the visual texts and give reasons for liking/disliking them.
- i. View and interpret key aspects including arrangement and facial expression by interpreting the following questions:
 - What are the objects or facts in the picture?
 - What do the objects or facts tell you?
 - How are the objects arranged in the visual?
 - Why are these objects placed in this way?
 - How do the objects help the story or fact?
 - What are the characters doing?
 - Compare different authors/illustrations considering the illustration or art work and interesting details.

Outcomes

CRK.3 Listen, comprehend, and respond to gain meaning in oral texts.

CRK.4 Comprehend, retell, and respond to basic ideas in stories, poems, songs, and informational texts read to them.

Indicators

- a. Listen attentively to others and respond appropriately.
 - b. Use strategies to construct and confirm meaning when listening:
 - make connections to background knowledge (before)
 - identify important ideas and events (during)
 - recall (after).
 - c. Understand and apply language cues and conventions to construct and confirm meaning when listening:
 - recognize the variations of language use at home, on the playground, and in the classroom (pragmatic)
 - describe characteristics of fiction texts (textual)
 - develop a sense of sentence (syntactic)
 - show curiosity in words and their sounds (lexical/semantic)
 - develop phonological awareness (graphophonic)
 - recognize how gestures and body language communicate part of the message (other cues and conventions).
 - d. Follow simple directions correctly and independently (e.g., Please put away your crayons and put your picture on the shelf.) and remember instructions given earlier.
 - e. Listen to traditional and contemporary stories from a variety of cultures including First Nations and Métis.
 - f. Listen for different purposes (e.g., to retell, to direct others, for enjoyment).
 - g. Identify important information.
 - h. Ask questions for clarification, and make comments relevant to the topic.
 - i. Connect story events and own experience.
 - j. Engage in conversations with others in an exchange of ideas, comments, or questions.
-
- a. Demonstrate an awareness that communication can occur through visuals and print texts (including First Nations and Métis texts).
 - b. Use strategies to construct and confirm meaning when “reading”:
 - make connections to background knowledge (before)
 - identify important ideas and events (during)
 - recall (after).
 - c. Understand and apply language cues and conventions to construct and confirm meaning when viewing, listening, and “reading”:
 - recognize the variations of language use at home, on the playground, and in the classroom (pragmatic)
 - describe characteristics of fiction texts (textual)

Outcomes

CRK.4 continued

Indicators

- develop a sense of sentence (syntactic)
 - show curiosity in words and their sounds (lexical/semantic)
 - develop phonological awareness (graphophonetic)
 - recognize how gestures and body language communicate part of the message (other cues and conventions).
- d. Demonstrate an interest in and knowledge about books and reading.
 - e. Know where to look for the title and author/illustrator.
 - f. Choose to read or look at books, and demonstrate knowledge of print, reading-like behaviours, and book-handling skills.
 - g. Demonstrate an awareness that print is a permanent way of recording ideas.
 - h. Create play situations from basic understandings of story text.
 - i. Explain the main idea.
 - j. Relate personal experiences, and represent responses through drama, physical movement, music, drawings, and models.

Compose and Create (CC)

Outcomes

CCK.1 Compose and create various visual, multimedia, oral, and written texts that explore and present thoughts, ideas, and experiences.

Indicators

- a. Compose and create a variety of texts that address identity (e.g., exploring interests), community (e.g., belonging), and social responsibility (e.g., contributing).
- b. Contribute ideas and experiences and consider the ideas of others.
- c. Share information and ideas with a group.
- d. Explore ideas and information to make sense of experiences.

CCK.2 Use and construct symbols, pictures, and dramatizations to communicate feelings and ideas in a variety of ways.

- a. Use imagination to communicate when appropriate.
- b. Use the appropriate strategies to communicate meaning:
 - find ideas to explore (before)
 - tell a story about self (during)
 - add detail (after).
- c. Use language cues and conventions to construct and communicate meaning:
 - use and apply the different functions of language (pragmatic)
 - tell or dramatize a story using own words and appropriate gestures (pragmatic)
 - use different sentence patterns (syntactic)
 - manipulate sounds and words in shared, guided, and independent activities (lexical/semantic)

Outcomes

CCK.2 continued

CCK.3 Use oral language to converse, engage in play, express ideas, and share personal experiences.

Indicators

- explore sounds and rhymes (graphophonic)
 - use various tools and techniques to represent ideas (other cues and conventions).
- d. Combine words and images to make meaning.
- e. Create a story about self and family.
- f. Incorporate story elements in representations.
- g. Demonstrate knowledge of upper and lower case letters; show awareness of the first place position of a capital letter in words; notice the use of punctuation marks and try them out in own communication.
- h. Express ideas and feelings using wood, blocks, clay, and natural materials.
- i. Interpret characters through drawing, talking, play, and drama.
- j. Represent stories through pictures, dictation, physical movement, and play and describe/explain their symbols, pictures, and dramatizations.
- a. Use oral language to engage in exploratory and imaginative play:
- create play situations
 - interpret peer's response to ideas
 - explain idea for play
 - play co-operatively with other children
 - express suggestions given by playmate.
- b. Use the appropriate strategies to communicate meaning when speaking:
- find ideas to explore (before)
 - tell a story about self (during)
 - add detail (after).
- c. Use language cues and conventions to construct and communicate meaning when speaking:
- use and apply the different functions of language (pragmatic)
 - tell or dramatize stories using own words and appropriate gestures (textual)
 - use different sentence patterns (syntactic)
 - manipulate sounds and words in shared, guided, and independent activities (lexical/semantic)
 - explore sounds and rhymes (graphophonic)
 - use various tools and techniques to represent ideas (other cues and conventions).

Outcomes

CCK.3 continued

CCK.4 Create messages using a combination of pictures, symbols, and letters.

Indicators

- d. Converse on personal experiences, preferences, and topics of interest:
 - talk to peers about likes and dislikes
 - express interest in different topics
 - share significant items from home and community
 - relate events to teacher
 - initiate conversations
 - ask politely to borrow something
 - take part in group activities such as circle or story time
 - share stories in large or small groups
 - share poems, rhymes, songs, and finger plays.

- a. Experiment with drawing, scribbling, letters, and temporary spelling to convey ideas.
- b. Use the appropriate strategies to communicate meaning when “writing”:
 - find ideas to explore (before)
 - tell story about self (during)
 - add detail (after).
- c. Use language cues and conventions to construct and communicate meaning when “writing”:
 - use and apply the different functions of language (pragmatic)
 - tell or dramatize stories using own words and appropriate gestures (textual)
 - use different sentence patterns (syntactic)
 - manipulate sounds and words in shared, guided, and independent activities (lexical/semantic)
 - explore sounds and rhymes (graphophonic)
 - use various tools and techniques to represent ideas (other cues and conventions).
- d. Attempt to copy letters or words from the environment (e.g., books, chart paper poems, word wall, name cards, public signs) to express ideas or understanding.
- e. Share experiences, feelings, and thoughts with a scribe.
- f. Write as part of play (e.g., grocery list, parking tickets, menu, signs).
- g. Tell others about the intended meaning of drawings and writings.
- h. Dictate a story based on a representation that needs to be explained in writing.

Assess and Reflect on Language Abilities (AR)

Outcomes

ARK.1 Reflect on viewing, listening, emerging “reading”, representing, speaking, and emerging “writing” experiences in the context of teacher-led discussions.

ARK.2 Reflect and talk about new learning.

Indicators

- a. Identify viewing, listening, emerging “reading”, speaking, emerging “writing”, and other representing strategies.
- b. Explain new strategies to peers and teacher.
- c. Attempt new strategies and determine what strategies are effective.
- d. Listen to and consider feedback given.

Health Education

Aim and Goals of K-12 Health Education

The K-12 **aim** of the Saskatchewan health education curricula is to develop confident and competent students who understand, appreciate, and apply health knowledge, skills, and strategies throughout life.

The K-12 **goals** are broad statements identifying what students are expected to know and be able to do upon completion of study in a particular subject, at the end of Grade 12. The three K-12 goals of health education are:

- Develop the understanding, skills, and confidences necessary to take action to improve health (**USC**).
- Make informed decisions based on health-related knowledge (**DM**).
- Apply decisions that will improve personal health and/or the health of others (**AP**).

Comprehensive School Health

Educators are asked to think about health education in relation to the needs and interests of their children. How can learning about health education be more purposeful, engaging, and authentic? How can it help children become more competent and confident in making healthy choices, more knowledgeable about a healthy self, family, community, and environment, and more engaged in identifying and addressing health opportunities and challenges?

Schools can make a substantial contribution to a child's health and well-being. This has been increasingly recognized by many international agencies including World Health Organization (WHO), United Nations Children's Fund (UNICEF), International Union for Health Promotion and Education (IUHPE), and other international and national organizations who recognize that all aspects of the life of the school community are potentially important in the promotion of health. A comprehensive school health approach includes a wide range of school personnel and community members collaborating to enhance the well-being of all children.

The purposes of a comprehensive school health approach are to collaboratively:

- promote health and wellness
- prevent specific diseases, disorders, and injury
- intervene to assist children and youth who are in need or at risk
- support children and youth who are already experiencing poor health

Pillars of Comprehensive School Health

Healthy Physical Environment

- *appropriate visuals and audio illustrations*
- *proper waste disposal*
- *effective anti-discrimination and anti-harassment policies*
- *access to extra-curricular activities*

Supportive Social Environment

- *appropriate school discipline policies*
- *effective school management practices*
- *active student participation*

High-quality Teaching and Learning

- *holistic development of the body, mind, and spirit*
- *goal setting*
- *powerful instructional strategies*
- *culturally appropriate resources*

Community Engagement and Partnerships

- *child protection services*
- *referrals*
- *guidance services*
- *counselling*

- provide an equitable playing field that addresses disparities and contributes to academic success.

Comprehensive School Health is an integrated approach to health education and promotion that aims to consistently reinforce health on many levels and in many ways.

Kindergarten Health Education

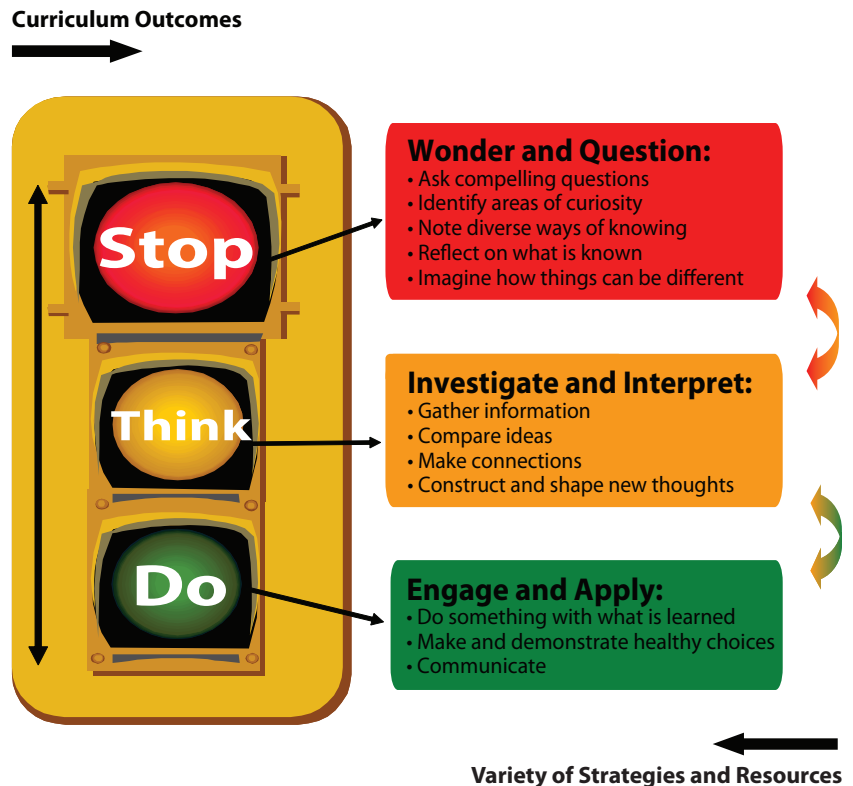
Health education provides opportunities for children to attain and maintain a healthy mind, body, and spirit through the education of the “whole child”. In Kindergarten Health Education, children acquire the understandings, skills, and confidences needed to practise such behaviours as establishing healthy relationships, following safety guidelines, asking big questions such as “Who am I?”, and demonstrating initial steps for developing basic health habits. Exploration of such healthy habits occurs through inquiry.

In Kindergarten, the inquiry process is represented as a traffic light (see Figure 1).

Figure 1. Inquiry for Healthy Decision Making

Inquiry for Healthy Decision Making

- The red light indicates that children and teachers should **STOP** to wonder and question about knowledge within and beyond the classroom. This involves asking compelling questions, reflecting on what is known, and imagining how things might be different.
- The yellow light suggests that children and teachers **THINK** deeply about what they are seeing, hearing, and feeling. This involves gathering knowledge from a wide range of sources for the purpose of comparing ideas, making connections, and shaping new thoughts.
- The green light represents the ‘doing’ part of learning. Children **DO** by making choices that enhance personal health and safety with what they know and understand.



As children wonder, investigate, and apply their learning in Kindergarten, the traffic light can be used by either an individual or group of children as a visual reminder of the healthy decision-making process.

Health Education Outcomes and Indicators

Perspective: Wondering About Health

Understanding, Skills, and Confidences; Decision Making; Action Planning

Goals of K-12 Health Education:

- Develop the understanding, skills, and confidences necessary to take action to improve health (USC).
- Make informed decisions based on health-related knowledge (DM).
- Apply decisions that will improve personal health and/or the health of others (AP).

Understanding, Skills, and Confidences (USC)

Outcomes

USCK.1 Develop basic habits to establish healthy relationships with self, others, and the environment.

Indicators

- a. Develop language with which to wonder and talk about healthy behaviours.
- b. Express what is known about healthy behaviours (e.g., sleeping, laughing, crying, observing nature, attending ceremonies, drinking water).
- c. Ask questions and seek answers about healthy behaviours.
- d. Illustrate what “healthy” looks like, sounds like, and feels like in a variety of contexts.
- e. Recognize examples of healthy habits (e.g., brushing teeth, washing hands, relaxing, reading, and sharing).
- f. Explore healthy behaviours and healthy relationships through creative expression (e.g., dramatization, role play) and storytelling.
- g. Represent visually, physically, and/or verbally why healthy habits are important.
- h. Describe feelings of calmness/peacefulness and experiment with the language to convey these feelings.
- i. Examine opportunities to be healthy at school and at home.
- j. Share what is known about healthy relationships (e.g., be kind to each other, laugh together, accept differences, feel like one belongs and contributes).
- k. Observe and discuss interactions among others (i.e., real life, media, literature) to identify positive/helpful and negative/hurtful behaviours.
- l. Recognize the value of taking time to “stop and think” before choosing/acting.

Outcomes

USCK.2 Establish behaviours that support safety of self and others (including safety at school and at home).

Indicators

- a. Develop the language with which to wonder and talk about safety.
- b. Recognize “safe” and “unsafe” behaviours and situations (e.g., taking turns, wearing weather-appropriate clothing, playing in designated areas, walking alone).
- c. Investigate safety guidelines and rules to keep one safe at school and at home.
- d. Learn and practise safety procedures in a variety of school and home contexts.
- e. Identify challenges that may exist to being safe at school and at home (e.g., limited supervision).
- f. Describe what children can do to support the safety of self and others.
- g. Examine what to do if the safety of self or others may be/is jeopardized (e.g., tell a trusted adult, leave, plan ahead).
- h. Participate in a variety of activities that provide opportunities to develop the confidence to support the safety of self and others (e.g., fire drill, wearing a seatbelt, knowing how to lock/unlock a door).

USCK.3 Explore that who I am includes more than my physical self.

- a. Develop the awareness of, and the language to talk about, all aspects of self.
- b. Ask and explore ‘big’ questions about “Who am I?”.
- c. Recognize personal physical and non-physical gifts/strengths/qualities (e.g., listening skills, knowing an additional language).
- d. Discuss self as an individual who has experiences that may or may not be similar to others.
- e. Recognize that thoughts and feelings are not always obvious to others.
- f. Explore the concept of “inner self” as a part of “who I am” that one can choose to share with others.
- g. Examine basic connections between personal thoughts and actions.
- h. Investigate sense of self as separate from, yet connected to, others.

Decision Making (DM)

Outcomes

DMK.1 Establish that being curious about health and well-being is important for developing healthy habits, establishing healthy relationships, supporting safety, and exploring “self”.

Indicators

- a. Explain what is understood about:
 - self
 - healthy habits
 - safety of self and others
 - healthy relationships.
- b. Examine basic choices related to:
 - healthy habits
 - safety behaviours
 - responding to more than the physical self of others.
- c. Make healthy choices related to:
 - exploring “self”
 - healthy habits
 - playing safely at home or at school
 - developing relationships.

Action Planning (AP)

Outcomes

APK.1 Demonstrate, with guidance, initial steps for developing basic health habits, establishing healthy relationships, supporting safety, and exploring “self”.

Indicators

- a. Describe the basic steps of “stop, think, do” for making healthy choices.
- b. Perform the basic steps of “stop, think, do” in daily play.
- c. Practise healthy habits related to:
 - exploring “self”
 - healthy choices
 - playing safely at home or at school
 - developing relationships.

Mathematics

Aim and Goals of K-12 Mathematics Education

Many of the topics and problems in a mathematics classroom can be initiated by the children themselves. In a classroom focused on working mathematically, teachers and children work together as a community of learners; they explore ideas together and share what they find. It is very different to the traditional method of mathematics teaching, which begins with a demonstration by a teacher and continues with children practicing what has been demonstrated.

(Skinner, 1999, p. 7)

The K-12 **aim** of Saskatchewan's mathematics program is to help students develop the understandings and abilities necessary to be confident and competent in thinking and working mathematically in their daily activities and ongoing learnings and work experiences. The mathematics program is intended to stimulate the spirit of inquiry within the context of mathematical thinking and reasoning.

The four K-12 **goals** for mathematics in Saskatchewan are broad statements that identify the characteristics of thinking and working mathematically. At every grade level, students' learning should be building towards their attainment of these goals. Within each grade level, outcomes are directly related to the development of one or more of these goals. The goals in boldface font in the list of outcomes indicate a stronger connection to the related outcome. The instructional approaches used to promote student achievement of the grade level outcomes will, therefore, also promote student achievement with respect to the goals.

Logical Thinking - Through their learning of K-12 mathematics, children will develop and be able to apply mathematical reasoning processes, skills, and strategies to new situations and problems. This goal encompasses the processes and strategies that are foundational to understanding mathematics as a discipline. These processes and strategies include:

- inductive and deductive thinking
- abstracting and generalizing
- exploring, identifying, and describing patterns
- verifying and proving
- exploring, identifying, and describing relationships
- modelling and representing (concretely, visually, physically, and symbolically)
- hypothesizing and asking "what if" (mathematical play).

Number Sense - Through their learning of K-12 mathematics, children will develop an understanding of the meaning of, relationships between, properties of, roles of, and representations (including symbolic) of numbers and apply this understanding to new situations and problems. Key to developing number sense is students having ongoing experience with:

- decomposing and composing of numbers
- relating different operations to each other
- modelling and representing numbers and operations (concretely, visually, physically, and symbolically)

- understanding the origins and need for different types of numbers
- recognizing operations on different number types as being the same operations
- understanding equality and inequality
- recognizing the variety of roles for numbers
- understanding algebraic representations and manipulations in terms of extending numbers
- looking for patterns and ways to describe those patterns numerically and algebraically.

Spatial Sense - Through their learning of K-12 mathematics, children will develop an understanding of 2-D shapes and 3-D objects, and the relationships between geometrical shapes and objects and numbers, and apply this understanding to new situations and problems. Development of a strong spatial sense requires students to experience:

- construction and deconstruction of 2-D shapes and 3-D objects
- investigations into relationships between 2-D shapes and 3-D objects
- explorations of how number (and algebra) can be used to describe 2-D shapes and 3-D objects
- exploration of the movement of 2-D shapes and 3-D objects
- exploration of the dimensions of 2-D shapes and 3-D objects
- exploration of different forms of measurement and their meaning.

Mathematics as a Human Endeavour - Through their learning of K-12 mathematics, students will develop an understanding of mathematics as a way of knowing the world that all humans are capable of with respect to their personal experiences and needs.

Students should be encouraged to challenge the boundaries of their experiences, and to view mathematics as a set of tools and ways of thinking that every society develops to meet their particular needs. This means that mathematics is a dynamic discipline in which logical thinking, number sense, and spatial sense form the backbone of all developments and those developments are determined by the contexts and needs of the time, place, and people.

Kindergarten Mathematics Education

Kindergarten mathematics provides children with an understanding of quantity, shape, and space in their environment. Children require opportunities for reflection, exploration of both patterns and relationships, sharing ideas and problems, and decision making. Opportunities for children to communicate through representing will be part of the learning experiences in Kindergarten. Kindergarten children will have opportunities to achieve the mathematics outcomes through play and inquiry.

For additional information, refer to <http://www.education.gov.sk.ca/math-curricula>.

Mathematics as a Human Endeavour

Developing an understanding of mathematics as a human endeavour requires students to engage in experiences that:

- *value place-based knowledge and learning*
- *value learning from and with community*
- *encourage and value varying perspectives and approaches to mathematics*
- *recognize and value one's evolving strengths and knowledge in learning and doing mathematics*
- *recognize and value the strengths and knowledge of others in doing mathematics*
- *value and honour reflection and sharing in the construction of mathematical understanding*
- *recognize errors as stepping stones towards further learning in mathematics*
- *require self-assessment and goal setting for mathematical learning*
- *support risk taking (mathematically and personally)*
- *build self-confidence related to mathematical insights and abilities*
- *encourage enjoyment, curiosity, and perseverance when encountering new problems*
- *create appreciation for the many layers, nuances, perspectives, and value of mathematics.*

Mathematics Outcomes and Indicators

Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

Goals of K-12 Mathematics:

- Students will develop and be able to apply mathematical reasoning processes, skills, and strategies to new situations and problems (Logical Thinking).
- Students will develop an understanding of the meaning of, relationships between, properties of, roles of, and representations (including symbolic) of numbers and apply this understanding to new situations and problems (Number Sense).
- Students will develop an understanding of 2-D shapes and 3-D objects, and the relationships between geometrical shapes and objects and numbers, and apply this understanding to new situations and problems (Spatial Sense).
- Students will develop an understanding of mathematics as a way of knowing the world that all humans are capable of with respect to their personal experiences and needs (Mathematics as a Human Endeavour).

Critical Characteristics of Mathematics Education: Research and experience indicate there is a complex, interrelated set of characteristics that teachers need to be aware of in order to provide an effective mathematics program.

- Communication [C]
- Connections [CN]
- Mental Mathematics and Estimations [ME]
- Problem Solving [PS]
- Reasoning [R]
- Visualization [V]
- Technology [T]

Number Strand

K-12 Goals: Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

Outcomes

NK.1 Say the whole number sequence by 1s starting anywhere from 0 to 10 and from 10 to 0.

[C, CN, V]

Indicators

- a. State the whole number that comes after a given number, zero to nine.
- b. State the whole number that comes before a given number, one to ten.
- c. Recite the whole number names from a given number to a stated number (forward - zero to ten, backward - ten to zero) using visual aids.

K-12 Goals: Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

NK.2 Recognize, at a glance, and name familiar arrangements of 1 to 5 objects, dots, or pictures.

[C, CN, ME, V]

- a. Look briefly at a given familiar arrangement of 1 to 5 objects or dots, and identify the whole number that represents the number of objects or dots without counting.
- b. Identify the whole number that represents an arrangement of objects, dots, or pictures on a five frame.

K-12 Goals: Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

Outcomes

NK.3 Relate a numeral, 0 to 10, to its respective quantity.

[C, R, V]

Indicators

- Construct or draw a set of objects corresponding to a given numeral.
- Identify the number of objects in a set.
- Hold up the appropriate number of fingers for a given numeral.
- Match numerals with pictorial representations.

K-12 Goals: Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

NK.4 Represent the partitioning of whole numbers (1 to 10) concretely and pictorially.

[C, CN, ME, R, V]

- Show a whole number in two parts, using fingers, counters, or other objects and name the number of objects in each part.
- Show a whole number in two parts, using pictures, and name the number of objects in each part.

K-12 Goals: Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

NK.5 Compare quantities, 0 to 10, using one-to-one correspondence.

[C, CN, V]

- Construct a set to show more than, fewer than, or as many objects as in a given set of objects.
- Compare two sets through direct comparison, and describe the relationship between the sets using words such as: more, fewer, as many as, or the same number.

Patterns and Relations Strand

K-12 Goals: Logical Thinking, Number Sense, Spatial Sense, Mathematics as a Human Endeavour

PK.1 Demonstrate an understanding of repeating patterns (two or three elements) by:

- identifying
- reproducing
- extending
- creating

patterns using manipulatives, sounds, and actions.

[C, CN, PS, V]

- Distinguish between repeating patterns and non-repeating sequences by identifying the part that repeats.
- Copy a repeating pattern (e.g., action, sound, colour, size, shape, or orientation) and describe the pattern.
- Extend repeating patterns by two more repetitions.
- Create a repeating pattern, using manipulatives, musical instruments, or actions and describe the pattern.
- Identify and describe a repeating pattern in the classroom, the school, and outdoors (e.g., in a familiar song, in a nursery rhyme, in a game, on the street, on the playground).

Shape and Space Strand

K-12 Goals: Logical Thinking, Number Sense, **Spatial Sense**, Mathematics as a Human Endeavour

Outcomes

SSK.1 Use direct comparison to compare two objects based on a single attribute, such as:

- length including height
- mass
- volume
- capacity.

[C, CN, PS, R, V]

Indicators

- a. Compare the length or height of two objects and explain how they compare using the words shorter, longer, taller, or almost the same.
- b. Compare the mass of two objects and explain how they compare using the words lighter, heavier, or almost the same.
- c. Compare the volume of two objects or capacity of two containers and explain how they compare using the words less, more, bigger, smaller, or almost the same.

K-12 Goals: Logical Thinking, Number Sense, **Spatial Sense**, Mathematics as a Human Endeavour

SSK.2 Sort 3-D objects using a single attribute.

[C, CN, PS, R, V]

- a. Sort a set of familiar 3-D objects using a single attribute, such as size or shape, and explain the sorting rule.
- b. Determine the difference between two pre-sorted sets by identifying the sorting rule used to sort each of them.

K-12 Goals: Logical Thinking, Number Sense, **Spatial Sense**, Mathematics as a Human Endeavour

SSK.3 Build and describe 3-D objects.

[C, PS, V]

- a. Create a representation of a 3-D object using materials such as modelling clay and building blocks, and compare the representation to the original 3-D object.
- b. Describe a 3-D object using words such as big, little, round, like a box, and like a can.

Physical Education

Aim and Goals of K-12 Physical Education

The K-12 **aim** of the Saskatchewan physical education curricula is to support students in becoming physically educated individuals who have the understandings and skills to engage in movement activity, and the confidence and disposition to live a healthy, active lifestyle.

The K-12 **goals** are broad statements identifying what students are expected to know and be able to do upon completion of study in a particular area of study, by the end of Grade 12. The goals of physical education **are interdependent and are of equal importance**.

The three goals for students from Kindergarten to Grade 12 are:

- **Active Living** - Enjoy and engage in healthy levels of participation in movement activities to support lifelong active living in the context of self, family, and community.
- **Skillful Movement** - Enhance quality of movement by understanding, developing, and transferring movement concepts, skills, tactics, and strategies to a wide variety of movement activities.
- **Relationships** - Balance self through safe and respectful personal, social, cultural, and environmental interactions in a wide variety of movement activities.

Kindergarten Physical Education

The outcomes for Kindergarten Physical Education all make direct connection to the three goals of **Active Living**, **Skillful Movement**, and **Relationships**. Not only do children need to move, they need to understand the “hows, whats, wheres, and whys” of movement. All three goals of physical education are reflected in each outcome, with the goals in boldface font indicating a stronger connection.

Mainly connected to the **Active Living** goal, the teacher will lead Kindergarten children to understand and practise the basic habits for developing health-related fitness to support personal well-being. The children will be able to recognize beneficial physical movement and the body signals that are a response to this movement. They will participate in a variety of movement activities at a moderate to vigorous level as they begin to establish the habit for a life of participation in movement activities.

Building towards achieving the **Skillful Movement** goal, the growth and development of children is of significant consideration. Specific movement skills are identified for teachers to focus on when teaching Kindergarten students. Children should be expected to explore and practise a variety of skills, with specific attention to the skills identified

Our physical movements can directly influence our ability to learn, think, and remember. It has been shown that certain physical activities that have a strong mental component, such as soccer or tennis, enhance social, behavioral, and academic abilities. Evidence is mounting that each person's capacity to master new and remember old information is improved by biological changes in the brain brought on by physical activity. Our physical movements call upon some of the same neurons used for reading, writing, and math. Physically active people report an increase in academic abilities, memory, retrieval, and cognitive abilities.

What makes us move is also what makes us think. Certain kinds of exercise can produce chemical alterations that give us stronger, healthier, and happier brains. A better brain is better equipped to think, remember, and learn.

(Ratey, 2001, p. 178)

in the outcomes. Kindergarten children are expected to perform some skills at a level referred to as Progressing towards Control (the additional levels of Control and Utilization are not a performance level expected of a Kindergarten student).

Progressing towards Control: This level of performance “is characterized by lack of ability to either consciously control or intentionally replicate a movement . . . Successful skill performances are a surprise!” (Graham, Holt/Hale, and Parker, 2007, p. 107).

Skillful Movement also includes expanding children’s awareness of what the body does, where the body moves, how the body performs the movement, and with whom or with what the body moves. These understandings are referred to as the movement variables. Kindergarten children will begin to explore the variables to support them in growing as skillful movers.

Safe and respectful interactions that reflect a consideration of self, others, and the learning environment are essential while learning and developing as a physically educated person. In Kindergarten, the outcomes that more deeply focus on the **Relationships** goal encourage children to develop a foundation for safe, considerate, and responsible behaviour while participating in movement activities.

Physical Education Outcomes and Indicators

Active Living, Skillful Movement, Relationships

Goals of K-12 Physical Education:

- Enjoy and engage in healthy levels of participation in movement activities to support lifelong active living in the context of self, family, and community (Active Living).
- Enhance quality of movement by understanding, developing, and transferring movement concepts, skills, tactics, and strategies to a wide variety of movement activities (Skillful Movement).
- Balance self through safe and respectful personal, social, cultural, and environmental interactions in a wide variety of movement activities (Relationships).

K-12 Goals: Active Living, Skillful Movement, Relationships

Outcomes

PEK.1 Fitness

Participate in a variety of moderate to vigorous movement activities for short periods of time to increase heart and respiration rate, flexibility, muscular endurance, and muscular strength.

Indicators

- Participate in moderate to vigorous locomotor movements (e.g., walking, running) and a variety of movement activities (e.g., individual activities, partner activities, rhythmic activities, low-organizational and co-operative games, and alternate environment activities), progressing towards sustaining movement for four consecutive minutes.
- Describe what the body feels like when it has participated in moderate activity and in vigorous activity.
- Recognize that physical movement is good for personal well-being.
- Communicate an understanding of the fact that all people have physical responses to participation in movement activities and that these responses are good and support well-being if they do not cause pain (e.g., faster heart beat, increased perspiration, faster breathing, increased body warmth).
- Participate in a variety of movements that challenge muscular endurance (e.g., animal walks, climbing on/under apparatus and playground equipment, pulling partner riding on a towel or scooter, rhythmical activities, balances).
- Participate in teacher-led movements that stretch or strengthen muscles (e.g., teacher-led yoga poses, teacher-led stretches).
- Create body shapes, as prompted by the teacher, to support the development of muscular strength, muscular endurance, and flexibility (e.g., stand as tall as a giant and reach to the sky, stand on one foot for as long as you can).
- Create and share body shapes and movements that challenge the body to be 'strong', to 'keep going', and to be 'stretchy'.

Outcomes

PEK.2 Locomotor Movement

Explore and practise ways to move the body through space, including at:

- a progressing-toward-control level of skill when:
 - walking
 - running
 - jumping forward and sideways
- an exploration level when:
 - **hopping** (body moves on one foot as in right foot to right foot)
 - **skipping** (combines a step and a hop)
 - **leaping** (body 'takes off' from one foot, propels through air for distance, then lands on the opposite foot)
 - **sliding** (one foot steps and the other moves to meet the first foot, "step-close")
 - **galloping** (one foot steps, body propels upward, other foot moves to meet the first foot).

Indicators

- a. Explore and share ways to move the body through space (e.g., crawl slowly, hop quickly, run sneakily like a weasel, pounce like a cat, leap like a ballerina, gallop like a horse).
- b. Explore moving in response to locomotor vocabulary (e.g., hop, leap, slide, jump, skip, sneak, tiptoe, dash).
- c. Respond physically to verbal prompts of travelling skill named by others (e.g., hop, leap, jump).
- d. Imitate the locomotor movements of others (e.g., copy actions made by others, follow-the-leader).
- e. Repeat performance words (e.g., "arms close to side", "knees bend a little bit") to demonstrate use of performance cues language related to locomotor skills.
- f. Explore ways to vary locomotor skills and share with others (e.g., "How can you move across the gym quickly?"; "What might you look like if you were moving like a horse?").
- g. Travel as instructed (e.g., walking quickly forward, leap from right foot to left foot, slide on a line) on signal, and try to stop smoothly on signal.
- h. Move between objects (e.g., ropes laid out to create pathways) and through obstacle courses using a variety of locomotor skills.
- i. Use a variety of locomotor skills when playing simple co-operative movement activities and games.

K-12 Goals: Active Living, Skillful Movement, Relationships

Outcomes

PEK.3 Non-locomotor Movement

Explore and practise ways to move the body in personal space at a progressing-towards-control level of skill when:

- balancing
- jumping and landing (on the spot).

Note: Kindergarten children might attempt to roll when they are exploring movement, although rolling is not part of the Kindergarten curriculum. Descriptors of how to roll safely are provided in the Grade 2 and Grade 3 physical education curricula.

Indicators

- Repeat performance words (e.g., “reach arms forward”, “bend knees to soften landing”) to demonstrate the use of performance cues language related to non-locomotor skills.
- Explore and discuss what it means to jump straight up and land in control (e.g., ‘motor-cycle riding’ position).
- Explore shifting (transferring) weight from one foot to the other, trying to stay in control (in balance).
- Practise jumping straight up and land following given instructions (e.g., jump off two feet and land on two feet).
- Practise jumping straight up and try to touch imaginary objects that are high in the sky and then try to land without falling down.
- Create and share various ways to ‘freeze’ (balance) on the spot.
- Practise balancing in different body shapes, both self-created and given (e.g., balance creating a wide body shape; balance being as narrow as you can; balance in a twisted body shape).
- Practise trying to maintain balance on two feet, close together, shoulder width apart, and wide apart, when signalled to do so after moving on the spot (e.g., wiggling, twisting).
- Use a variety of non-locomotor skills when playing simple co-operative movement activities and games.

K-12 Goals: Active Living, Skillful Movement, Relationships

Outcomes

PEK.4 Manipulative Skills

Explore and practise ways to send and receive objects at an exploration level when:

- throwing (rolling)
- catching (trapping, gathering)
- kicking.

Indicators

- Explore and share ways to send (throw and roll) a small soft object (e.g., yarn ball, hackey-sack, beanbag) at a wall, and over and under objects (e.g., a chair, a bench), varying distance from the fall or object, using two hands, and using each hand separately.
- Explore and share ways to send (throw and roll) a variety of small balls and bean bags at targets (that the ball will not bounce off) from close distances, using each hand separately and both hands together.
- Explore and share ideas about how to throw and catch (gather) a variety of objects, including balls, bean bags, scarves, and balloons, both overhand and underhand, using each hand separately and both hands together.

Outcomes

PEK.4 continued

Indicators

- d. Explore throwing and catching one or more scarves, underhand and overhand, using each hand separately and both hands together.
- e. Repeat performance words (e.g., “look at the ball”, “step forward”) to demonstrate the use of performance cues language related to send and receive objects.
- f. Drop and try to catch a ball using each hand separately and both hands together.
- g. Practise trapping and gathering (stopping with hands or feet, and picking up with hands) balls that are rolling on the ground using one hand, two hands, and one foot and two hands.
- h. Practise kicking beanbags and a variety of balls, using each foot.
- i. Practise kicking a stationary ball forward while in a stationary position, using each foot separately.
- j. Explore and describe what happens when a ball is contacted with different parts of the foot when trying to kick it.
- k. Explore and discuss ways to approach and kick a stationary ball forward, using each foot separately.
- l. Explore sending objects (e.g., balloons, balls of various sizes) using various body parts such as arms, legs, and head.
- m. Share discoveries of how the movement of an object changes when the skill is performed differently (e.g., kick a ball with the toes, and then kick it with the inside of the foot; throw a ball with the arm moving closer to the body and then with the arm moving far away from the body).
- n. Use a variety of manipulative skills when playing simple co-operative movement activities and games.

K-12 Goals: Active Living, Skillful Movement, Relationships

Outcomes

PEK.5 Movement Variables

Vary, with guidance, the movement of the body through changes in:

- **space** (personal space, general space, levels, directions, and pathways)
- **effort** (time and speed)
- **relationships** (body parts and shapes).

Indicators

- a. Move the body through space following given directions (e.g., “stay in personal space and stretch your body as big as you can; now make your body as small as you can”, “move through general space on hands and feet staying low to the floor – move forward, backward, sideways”).
- b. Recognize and respond to movement vocabulary (e.g., personal space, general space, balance, high, zig-zag).
- c. Create and perform movements, in sequence of at least two phrases, to represent images (e.g., riding a horse quickly, slowly; climbing a fence then balancing on a plank over some water; walking like a robot then stretching the body high to the sky while moving forward).

Outcomes

PEK.5 continued

Indicators

- d. Move from one point to another, through moving classmates, trying not to contact anyone else.
- e. Respond physically and correctly to instructions that vary the direction, levels, pathways, and effort of the body movement (e.g., walk backward slowly and lightly, move on hands and feet keeping body as low to the ground as possible).
- f. Move in personal space and general space on various body parts (e.g., “move body parts as fast as you can while remaining seated in your personal space”; “move across the floor while remaining seated”; and “move across the floor on your hands and feet”).
- g. Move over, under, around, behind, in front of, on, and off a variety of objects.
- h. Practise freezing any movement when signalled to do so.

K-12 Goals: Active Living, Skillful Movement, Relationships

Outcomes

PEK.6 Rhythmical Movement

Explore and perform rhythmical movement to different auditory (e.g., beat of a drum, clapping, music) rhythms (e.g., quick, slow) using a variety of locomotor movements including walking, running, balancing, jumping, galloping, hopping, and skipping skills.

Indicators

- a. Move in personal space and through general space to the beat of a drum and to clapped patterns, using a variety of movement skills (e.g., walking, running), movement efforts (e.g., quickly, slowly, lightly, heavily), and movement relationships (e.g., ‘tall’ body, ‘small’ body, ‘wiggly’ body).
- b. Move to music adjusting the speed of movement in time to the rhythm of the music and the intensity of the sound.
- c. Move body in time to the beat of the music while keeping feet in one spot and remaining balanced (e.g., move arms only, move hips only, bend up and down at the knees).
- d. Follow rhythmical movements led by others.
- e. Lead others in rhythmical movement, both while remaining in personal space and while moving through general space.
- f. Create and share simple movement sequences or movement stories (e.g., the squirrel *jumps* out of the tree, *scurries* through the grass, and *shakes* while *hiding* in a big, hollow log).

K-12 Goals: Active Living, Skillful Movement, Relationships

Outcomes

PEK.7 Relationships

Use respectful behaviours and safe practices while participating in cooperative games and physical movement activities.

Indicators

- a. Practise being both the leader and follower in a variety of physical movement activities.
- b. Practise sharing an object (e.g., ball) and space with one other person.
- c. Describe what it means to be aware of other people and the environment when moving through space to support safety of self and others.
- d. Discuss and practise ways to solve problems when moving among other people (e.g., say excuse me, take turns when appropriate).
- e. Repeat and practise safety rules related to movement in physical activity setting (e.g., make sure that balls are not left rolling around where someone else can step on them, do not throw balls at other people, keep head up and look around when moving).
- f. Recognize that it is okay to continue participating when tired or to take a break when feeling pain.
- g. Engage in play with a variety of classmates, including those who are friends or not friends.
- h. Persist in trying even when it gets hard to do so (as long as it does not hurt).
- i. Share thoughts on cheating (e.g., “What does cheating look like when we play games?”; “Why do you think people cheat when playing games?”; and “Is it wrong to cheat?”).
- j. Show respect for nature when participating in outdoor physical movement activities.
- k. Practise accepting feelings and demonstrating acceptable behaviours associated with losing.
- l. Explore movement using various types of equipment safely (e.g., scooters, hoops, climbing apparatus).
- m. Follow the rules of play while participating in a variety of simple cooperative movement activities and lead-up games.
- n. Create simple rules for play and share these rules with others.
- o. Take responsibility for helping to put equipment away and treating equipment respectfully.

Science

Aim and Goals of K-12 Science

The K-12 **aim** of the Saskatchewan science education curricula is to enable all Saskatchewan students to develop scientific literacy. Scientific literacy today embraces Euro-Canadian and Indigenous heritages, both of which have developed an empirical and rational knowledge of nature. A Euro-Canadian way of knowing about the natural and constructed world is called science, while First Nations and Métis ways of knowing nature are often called Indigenous Knowledge.

Diverse learning experiences based on the outcomes in science will provide students with many opportunities to explore, analyze, evaluate, synthesize, appreciate, and understand the interrelationships among science, technology, society, and the environment (STSE) that will affect their personal lives, their careers, and their future.

The K-12 **goals** are broad statements identifying what students are expected to know and be able to do upon completion of the learning in a particular area of study, by the end of Grade 12. The four goals of K-12 science education are to:

- **Understand the Nature of Science and STSE Interrelationships:** Students will develop an understanding of the nature of science and technology; their interrelationships; and their social and environmental contexts, including interrelationships between the natural and constructed world.
- **Construct Scientific Knowledge:** Students will construct an understanding of concepts, principles, laws, and theories in life science, in physical science, in earth and space science, and in Indigenous Knowledge of nature; and then apply these understandings to interpret, integrate, and extend their knowledge.
- **Develop Scientific and Technological Skills:** Students will develop the skills required for scientific and technological inquiry, problem solving, and communicating; for working collaboratively; and for making informed decisions.
- **Develop Attitudes that Support Scientific Habits of Mind:** Students will develop attitudes that support the responsible acquisition and application of scientific, technological, and Indigenous Knowledge to the mutual benefit of self, society, and the environment.

Scientific inquiry refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work.

(National Research Council, 1996, p. 23)

Learning Contexts

Learning contexts provide entry points into the curriculum that engage students in inquiry-based learning to achieve scientific literacy:

- The **scientific inquiry (SI)** learning context reflects an emphasis on understanding the natural and constructed world using systematic empirical processes that lead to the formation of theories that explain observed events and that facilitate prediction.
- The **technological problem solving (TPS)** learning context reflects an emphasis on designing and building to solve practical human problems similar to the way an engineer would.
- The **STSE decision making (DM)** learning context reflects the need to engage citizens in thinking about human and world issues through a scientific lens in order to inform and empower decision making by individuals, communities, and society.
- The **cultural perspectives (CP)** learning context reflects a humanistic perspective that views teaching and learning as cultural transmission and acquisition (Aikenhead, 2006).

Kindergarten Science

To achieve the vision of scientific literacy in Kindergarten, children must increasingly become engaged in the planning, development, and evaluation of their own learning activities in the areas of the environment, energy, objects and materials, and natural surroundings. In the process, children should have the opportunity to work collaboratively with others, to initiate investigations, to communicate findings, and to complete projects that demonstrate learning.

In Kindergarten, scientific literacy will be achieved through inquiry as children explore, using their senses and extending their capabilities through the use of technology. Children in Kindergarten should be able to explain what they were looking for, how they looked for it, what they found, and what the findings mean.

Science Outcomes and Indicators

Life Science: Living Things in our Environment (LT)

Goals of K-12 Science:

- **Understand the Nature of Science and STSE Interrelationships:** Students will develop an understanding of the nature of science and technology; their interrelationships; and their social and environmental contexts, including interrelationships between the natural and constructed world.
- **Construct Scientific Knowledge:** Students will construct an understanding of concepts, principles, laws, and theories in life science, in physical science, in earth and space science, and in Indigenous Knowledge of nature; and then apply these understandings to interpret, integrate, and extend their knowledge.
- **Develop Scientific and Technological Skills:** Students will develop the skills required for scientific and technological inquiry, problem solving, and communicating; for working collaboratively; and for making informed decisions.
- **Develop Attitudes that Support Scientific Habits of Mind:** Students will develop attitudes that support the responsible acquisition and application of scientific, technological, and Indigenous Knowledge to the mutual benefit of self, society, and the environment.

Life Science: Living Things in our Environment (LT)

All outcomes in this unit contribute to the development of all K-12 science goals.

Outcomes

LTK.1 Examine observable characteristics of plants, animals, and people in their local environment.

[CP, SI]

Indicators

- a. Pose questions about observable characteristics of plants and animals such as “Do all animals have four legs?”, “How do fish breathe?”, “Are all plants green?”, and “Do plants breathe?”
- b. Record with assistance, observable characteristics (e.g., colour, texture, odour, teeth, number of limbs, method of movement, method of breathing, number of leaves, shape of leaves, type of leaves, eye colour, height, and hair colour) of plants, animals, and people found at school, home, or in the community, using terminology and language that others understand.
- c. Seek out information about the observable characteristics of plants, animals, and people from a variety of sources, such as family members, friends, Elders, knowledge keepers, and scientists.
- d. Select and safely use appropriate tools such as a hand lens (i.e., magnifying glass) and digital camera to observe plants and animals in the local environment.
- e. Show respect for the needs of other people, other living things, and the environment when observing and interacting with living things (e.g., show concerns for other students’ feelings, care for living things that are kept in their classroom, and willingly suggest how we can protect the environment).

Outcomes**LTK.1 continued****Indicators**

- f. Explore portrayals of plants, animals, and people through stories and artwork from various cultures, including First Nations and Métis.
- g. Share stories and observations of plants, animals, and people in the local environment with classmates or others.
- h. Identify similarities and differences in observable characteristics among different plants, among different animals, and among different people.
- i. Sort and classify pictures and drawings of plants, animals, and people using student-developed criteria.
- j. Create visual, dramatic, and/or multimedia representations of the characteristics of a student-selected plant or animal to share with classmates and others.

Physical Science: Observing Forces and Energy (FE)

All outcomes in this unit contribute to the development of all K-12 science goals.

Outcomes**FEK.1 Examine the effects of physical forces, magnetic forces, light energy, sound energy, and heat energy, on objects in their environment.****[SI]****Indicators**

- a. Investigate how applying or removing physical and magnetic forces of varying intensity can cause objects (e.g., toy cars, blocks, balls, pencils, and books) in their environment to move, stop moving, stay at rest, or change direction.
- b. Predict and test the results of applying physical and magnetic forces, including friction, to an object or removing forces from an object.
- c. Describe the effects of applying forces of varying intensity on various objects using personal language such as “it moved”, “it stopped”, and “it changed direction”.
- d. Observe the effects of magnets on a variety of metallic and non-metallic objects (e.g., nails, screws, pencils, paper, keys, paper clips, and clothing) and sort those objects based on their attraction to magnets.
- e. Identify natural and artificial sources of light, sound, and heat in their environment.
- f. Conduct simple investigations into the effects of light, sound, and heat on different objects, including self, through free exploration, focused exploration, and guided activity using inquiry skills (e.g., heat melting crayons, sunlight fading paper, and rice on a drum bouncing).

Outcomes**FEK.1 continued****Indicators**

- g. Describe personal observations of the effects of light, sound, and heat energy on objects, including self, using stems such as I see, I hear, it feels, it smells, and it tastes (when safe and appropriate to do so).
- h. Predict effects (e.g., plant growth is reduced, danger warnings are not heard, and objects may freeze) of the removal of light, sound, and/or heat from their environment.

Physical Science: Materials and Objects (MO)

All outcomes in this unit contribute to the development of all K-12 science goals.

Outcomes**MOK.1 Investigate observable characteristics of familiar objects and materials in their environment.**

[SI]

Indicators

- a. Pose questions about characteristics of objects and materials that lead to exploration and investigation.
- b. Identify different materials that make up familiar objects found in their learning environment (e.g., classroom, school, and playground).
- c. Differentiate between objects and the materials used to construct the object.
- d. Identify observable characteristics of materials, such as colour, texture, and odour, and observable characteristics of objects, such as shape, size, and weight.
- e. Explore how materials may change as a result of processes such as cutting, gluing together, heating, cooling, folding, and pouring them into different containers.
- f. Sequence or group objects and materials according to one or more student-selected criteria (e.g., arrange a set of wooden blocks from largest to smallest).
- g. Discuss how familiar objects are designed to meet human needs.
- h. Identify and explore ways to use appropriate tools (e.g., balance, funnel, stapler, hammer, glue, scissors, and containers) safely to help carry out a variety of useful tasks such as stapling, measuring, hammering, gluing, and cooking.
- i. Explain how tools and other objects are designed to meet human needs.

Earth and Space Science: Exploring Our Natural Surroundings (NS)

All outcomes in this unit contribute to the development of all K-12 science goals.

Outcomes

NSK.1 Explore features of their natural surroundings (e.g., soil, water, landform, and weather conditions), including changes to those surroundings over time.

[DM, SI]

Indicators

- a. Pose questions related to features of their local surroundings such as “Where did the rain water go?”, “Why is some snow harder than other snow?”, and “Is a grain of sand a rock?”
- b. Gather and record information about characteristics of their natural surroundings using all of their senses and technologies such as digital cameras, audio recorders, video recorders, and sketchpads.
- c. Describe and illustrate features of their local surroundings such as soil type and texture, weather conditions (e.g., temperature, wind direction and speed, and humidity), presence of water in various forms and states, and landform types (e.g., grassy, rocky, forested, and cultivated).
- d. Identify, with guidance, changes in one or more aspects of their natural surroundings over a given time interval (e.g., changes in temperature over a day and a week, changes to a tree over a year, changes in soil in a garden or flower bed over two seasons).
- e. Suggest ways in which human activities intentionally or unintentionally cause changes to natural surroundings (e.g., building houses, mowing lawns, cutting down trees, planting gardens, damming streams, and digging ditches).
- f. Respond to and acknowledge the ideas of classmates and others such as traditional knowledge keepers and conservation officers who provide information about our natural surroundings.
- g. Communicate ideas, actions, experiences, and understandings of patterns and cycles in the natural world with others using charts, displays, videos, stories, or other artistic representations.

Social Studies

Aim and Goals of K-12 Social Studies

The purpose of Kindergarten to Grade 12 social studies is to help students know and appreciate the past, understand the present, influence the future, and make connections between events and issues of the past, the present, and the future. Further, its purpose is to make students aware that, just as contemporary events have been shaped by actions taken by people in the past, they have the opportunity to shape the future. The ultimate **aim** is for students to have a sense of themselves as active participants and citizens in an inclusive, culturally diverse, interdependent world.

The K-12 **goals** are broad statements identifying what students are expected to know and be able to do upon completion of the learning in a particular area of study, by the end of Grade 12. The four goals of K-12 social studies and social sciences education are to:

- Examine the local, indigenous, and global interactions and interdependence of individuals, societies, cultures, and nations (**IN**).
- Analyze the dynamic relationships of people with land, environments, events, and ideas as they have affected the past, shape the present, and influence the future (**DR**).
- Investigate the processes and structures of power and authority, and the implications for individuals, communities, and nations (**PA**).
- Examine various worldviews about the use and distribution of resources and wealth in relation to the needs of individuals, communities, nations, and the natural environment, and contribute to sustainable development (**RW**).

The **Interactions and Interdependence goal (IN)** recognizes and encompasses the disciplines of anthropology, archaeology, philosophy, psychology, and sociology within the social studies and social sciences, while the **Dynamic Relationships goal (DR)** recognizes and encompasses the disciplines of geography and history. As well, the **Power and Authority goal (PA)** recognizes and encompasses the disciplines of political science and law, while the **Resources and Wealth goal (RW)** recognizes and encompasses the disciplines of economics and environmental studies.

Multicultural Education

Multicultural education fosters understanding, acceptance, empathy, and constructive and harmonious relations among people of diverse cultures. It encourages learners of all ages to view cultures different

Multiculturalism is a recognition of the diversity of cultural differences which exist in a pluralistic society and an endorsement of a society in which individuals of all cultures are accepted and accorded respect.

(Saskatchewan Education, 1994, p. 1)

from their own as sources of learning and enrichment. The inclusion of multicultural content, perspectives, and resources in social studies helps students to develop multicultural perspectives that prepare students to live more enriched and compassionate lives while contributing harmoniously to a pluralistic society.

Portrayal of People With Disabilities

Persons with disabilities have often been depicted inaccurately in print, media, and other classroom resources. Stereotypical depictions have served to give readers, listeners, and viewers inappropriate information and have engendered attitudes ranging from feelings of pity or revulsion to expectations of superhuman powers of intellect. It is critical that social studies teachers use materials that portray persons with disabilities realistically and fairly.

Kindergarten Social Studies Education

As part of social studies, children explore their relationships with people, the land, and their communities. Children will be given opportunities to develop their understandings of the diversity and uniqueness of individuals, in addition to the connections humans have to both their natural and constructed environments. Through classroom and community experiences, Kindergarten children will learn about interactions, rules, and responsibilities. Teachers are invited to include examples beyond the immediate student environment when appropriate. Teachers are also reminded that diversity within classrooms must be addressed with sensitivity and inclusiveness, recognizing that not all cultural traditions are practised by all members of a particular cultural group.

Treaty education is infused throughout Kindergarten social studies, with the concepts of sharing, promises, and agreements serving as foundations to understanding the Treaty relationship within Saskatchewan.

Social Studies Outcomes and Indicators

Interactions and Interdependence (IN)

Goals of K-12 Social Studies:

- Examine the local, indigenous, and global interactions and interdependence of individuals, societies, cultures, and nations (IN).
- Analyze the dynamic relationships of people with land, environments, events, and ideas as they have affected the past, shape the present, and influence the future (DR).
- Investigate the processes and structures of power and authority, and the implications for individuals, communities, and nations (PA).
- Examine various worldviews about the use and distribution of resources and wealth in relation to the needs of individuals, communities, nations, and the natural environment, and contribute to sustainable development (RW).

Interactions and Interdependence (IN)

Outcomes

INK.1 Demonstrate an understanding of similarities and differences among individuals in the classroom.

INK.2 Describe the diversity of groups represented in the classroom.

Indicators

- a. Identify and categorize the attributes that make an individual unique (e.g., physical features, cultural interests, personality characteristics).
 - b. Identify and categorize factors that individuals have in common, including basic physical needs of all people (e.g., food, water, clothing, shelter, love, and belonging).
 - c. Explore and describe various ways in which people meet their needs, and describe how these ways are similar and different.
- a. Investigate the diversity of languages and cultural traditions represented in the classroom and school, and recognize the role language and culture play in an individual's unique identity.
 - b. Describe various cultural traditions, festivals, and celebrations recognized by children's families and communities, and discuss the importance of these cultural traditions, festivals, and celebrations.
 - c. Identify individuals and groups that are important in children's lives, and explain why these individuals and groups are important to them as individuals (e.g., family, Elders, senior citizens, friends, storytellers, classmates, members of activity groups to which children belong).

Dynamic Relationships (DR)

Outcomes

DRK.1 Describe the spatial relationships among people, places, and environments.

Indicators

- a. Demonstrate understanding of personal directions (e.g., left/right, up/down, front/back) and relative location (e.g., near/far, above/below).
- b. Indicate the relative position of earth below and sky above.
- c. Recognize that some cultural groups describe earth and sky according to traditional spiritual beliefs (e.g., Mother Earth, Creator, Heaven, God, Odin, The Dagda, Tangaroa).
- d. Identify cardinal directions (north, south, east, and west) on a simple map, when in the classroom, and on the playground.
- e. Locate and name places in the school and playground, and illustrate their functions (e.g., water fountain, washroom, library, playground equipment).
- f. Describe characteristics of the local physical environment, including natural (e.g., plains, forests, lakes, rivers) and constructed elements (e.g., buildings, roads, farms).
- g. Explore the world beyond the immediate environment, through stories of personal travels, recollection of books and other narratives, and various map representations (including a map of the local community, the province, the nation, and a globe).

DRK.2 Explore examples of promises made through actions and words, and why it is important to keep promises.

- a. Identify situations where a promise has been made in personal stories, recollection of books, and other narratives.
- b. Describe the consequences of when promises are kept and when they are not (e.g., hurt feelings, misunderstandings).

DRK.3 Analyze ways in which place and physical systems influence daily life, including the influence of place on the daily life of First Nations and Métis people.

- a. Name, and describe the physical characteristics of, the four seasons.
- b. Give examples of how daily life is influenced by environment (e.g., work, play, clothing).
- c. Identify how weather affects everyday life, and describe how adaptation for seasonal change is evident in daily life (e.g., clothing, food, home construction, recreational and sporting activities, transportation).
- d. Investigate ways in which place influences identity (e.g., leisure activities, sports, arts, and culture are all influenced by place).

Power and Authority (PA)

Outcomes

PAK.1 Understand and respect the agreed-upon rules of the classroom, playground, and school, and recognize that rules and expectations are designed to promote a state of safety, self-regulation, peace, balance, and harmony.

PAK.2 Recognize situations in which disagreement may be part of living, studying, and working together, and that resolution may be an avenue to progress to a state of peace, balance, and harmony.

Indicators

- a. Name some rules in the home and the school and identify their purposes (e.g., school rules, safety rules, scheduling rules such as recess or lunch time).
 - b. Differentiate between those rules and decisions made by students themselves, those made by individuals they know, and those made by someone else (e.g., students, teachers and schools make rules about how to be safe in the classroom, such as no running; the provincial government makes rules about how to be safe in a vehicle, such as speed limits and seatbelt requirements).
 - c. Explain why rules are important.
 - d. Identify individual roles and responsibilities within the classroom and school.
 - e. Identify people who make rules that influence students' lives, and discuss the types of decisions made by self and others.
 - f. Recognize that appropriate behaviour differs depending upon the setting.
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- a. Identify situations in which disagreements may arise in the classroom, school, and playground.
 - b. Suggest approaches to resolving disagreement in the classroom, school, and playground.
 - c. Recognize that agreements promote harmony and balance.
 - d. Represent a situation in which people with different points of view interact harmoniously together.
 - e. Provide an example of when it might be acceptable to break a rule or a promise (e.g., when someone is injured, when someone is feeling scared or threatened).

Resources and Wealth (RW)

Outcomes

RWK.1 Examine ways of managing tasks and resources in families and schools.

RWK.2 Develop and demonstrate stewardship of the environment in daily actions, in an effort to promote balance and harmony.

Indicators

- a. Give examples of different types of work in the family and school, including paid and unpaid work.
 - b. Share stories of personal responsibilities within the home and school.
 - c. Brainstorm ways in which decisions can be made about various classroom tasks requiring completion (e.g., teacher decision, volunteers emerge, majority vote, rotation through class roster).
 - d. Relate occasions when the sharing of tasks and resources is necessary and desirable in the classroom and within the family.
 - e. Display examples of sharing within the classroom and school.
 - f. Identify occasions in which sharing is not advisable and explain why (e.g., toothbrushes, toques, hats, nut-based food stuffs).
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- a. Recognize reasons to care for the environment.
 - b. Identify ways to care for the environment (e.g., reduce, reuse, and recycle) in daily classroom and family life.
 - c. Demonstrate environmentally responsible behaviours in the classroom and school (e.g., take only what is needed in order to provide for future needs, reduce consumption, practise water conservation, turn off lights when leaving a room, recycle, compost).

Assessment and Evaluation

The teaching and learning process involves assessing and evaluating children's achievement in relation to the outcomes of the provincial curriculum. The assessment of children should encompass the whole child and involve evidence gathered over time.

Effective educators continuously assess the degree to which children are achieving the curricular outcomes. Evidence is gathered through observing, documenting, and interpreting to reveal what children have learned from experiences both inside and outside the classroom. This evidence of children's learning is analyzed and conclusions are drawn about what the child knows, understands, and is able to do, as well as the breadth and depth of a child's understanding.

Purposes of Assessment

Educators assess children for interrelated purposes:

- to collect evidence to guide daily planning (assessment for learning)
- to assist children in becoming aware of their thinking (metacognition) and to make it visible by documenting the learning process (assessment as learning)
- to record evidence of children's learning to report to caregivers and to in-school and school division administrators (assessment of learning).

Assessment for Learning

Assessment for learning includes the educator's reflections and interpretations regarding children's progress to determine what each child needs. Based on this analysis, the educator can design learning experiences that provide a scaffold to new learning.

Educators support assessment for learning by:

- observing the developmental steps undertaken by children
- constructing an understanding of children's insights and development
- analyzing how individuals and groups construct their knowledge
- making informed decisions about program planning
- thinking about what children/educators learned in the experience
- asking questions about the meaning of the experience
- supporting children in relating new experiences to previous experiences
- considering new ways to support children in understanding and representing ideas.

Assessment as Learning

Children become curious and interested as they review their experiences and describe the knowledge and processes that evolved during that particular experience. During the Kindergarten experience, the educator encourages the children to:

- pose questions about the ideas and events
- offer deeper explanations or theories
- persevere in their efforts to participate or complete a project or activity
- reflect upon their learning and how they learn (metacognition).

Metacognition is defined as the ability to think about and reflect on one's own thinking and learning processes. Metacognition helps children monitor their own understanding and develop strategies for lifelong learning. When children verbalize their thinking as they develop or revisit ideas, they reveal their understanding giving educators insights to children's development. Knowledge of personal strategies and processes are important for children in order to help them learn. Metacognition involves the following:

- an ability to reflect on one's own performance
- an ability to plan, monitor success, and correct errors when appropriate
- knowledge of individual learning strengths and needs.

Assessment of Learning

Assessment of learning provides evidence of the children's learning in order to make judgements about children's achievement. It also provides an opportunity to report evidence of achievement related to subject area outcomes. Assessment of learning occurs at the end of the learning cycle using a variety of tools such as rubrics, checklists, anecdotal notes, performance tasks, self-assessment tools, and portfolios.

The assessment strategies used must measure children's learning and progress, provide children with feedback, guide the learning process, and provide a valid means to document and record children's learning.

Documentation

Documentation provides a transparent process of how children make meaning of ideas and develop theories. Documentation provides information about children's learning and progress.

Documentation can assist educators to evaluate:

- the degree to which children are achieving the provincial curricular outcomes

Documentation looks at children using a wide lens as it endeavours to capture the richness and depth of their learning.

(Fraser, 2006, p. 157)

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- how children are developing holistically
 - the ways that children approach an investigation, solve a problem, and interact with each other
 - children’s learning and understandings of concepts and processes which inform the next steps in children’s learning.

Documentation can be used to make children’s learning visible. As the educator prepares the documentation, children may be invited to offer their ideas about important aspects of the process. Documentation of the children’s work provides:

- opportunities to focus on children’s metacognition
- evidence of children’s strengths and capabilities
- information for caregivers and colleagues about children’s learning and growth in relation to the curricular outcomes
- a record of children’s learning and growth
- a direction for conversations about children’s learning and development.

Purposes of Evaluation

Evaluation compares assessment information against criteria based on curriculum outcomes for the purpose of communicating to students, teachers, parents/caregivers, and others about student progress and to make informed decisions about the teaching and learning process. Reporting of student achievement must be based on the achievement of curriculum outcomes.

Glossary

Cardinal directions include north, south, east, and west.

Convention is an accepted practice or agreed-upon rule in representational, spoken, or written language.

Cueing Systems are sets of cues or clues built into the structure or patterns of texts.

General Space is the space within a room or boundaries that the body can travel through, moving away from the original starting space.

Elders, in First Nations communities, are those who have lead an exceptional life based on traditions, customs, and culture of First Nations, and have such qualities as knowledge of heritage and history, sites, practices, ceremonies, protocols, and songs, and are fluent in their language. Elders advocate traditional leadership, governance, and law; are aware of and supportive of Treaty rights and history; acknowledge the diversity of First Nations cultures, languages, and traditions; and work to ensure the intergenerational transfer of traditional First Nations knowledge, history, culture, languages, and practices to youth.

Environment includes the physical, social, and economic environment, including surroundings that are natural and constructed.

Graphophonic Cues and Conventions refer to the sounds of speech (phonology) and how these sounds are organized in patterns, pronounced, and graphically represented (spelled).

Indicators are representative of what children need to know and/or be able to do in order to achieve an outcome. Indicators represent the breadth and the depth of the outcome. The list provided in the curriculum is not an exhaustive list. Educators may develop additional and/or alternative indicators but those educator-developed indicators must be reflective of and consistent with the breadth and depth that is defined by the given indicators.

Indigenous refers to originating in, or native to, a land or region.

Inquiry involves children in some type of exploration, investigation, or experimentation regarding a specific topic, problem, or issue for play, learning, and action. Inquiry is a way of opening up spaces for children's interests and involving them in as many different aspects of a topic, problem, or issue as children can find.

Knowledge Keeper is an individual recognized in the community as learned and displaying great wisdom. In First Nations communities, this person is often an Elder.

Locomotor Skills are skills where the body is moving (traveling) through space. They include such skills as walking, running, leaping, and sliding.

Manipulative Skills are skills that allow the body to interact with objects by sending (e.g., throwing, striking), receiving (e.g., catching, collecting), deflecting, and accompanying (e.g., stick handling).

Metacognition is the ability to think about and reflect on one's own thinking and learning processes.

Movement Activity is the all-inclusive descriptor that includes any form of physical movement including leisure activities such as sand/water play, energy expending activities such as running, and skillful movements such as throwing, aiming, and kicking, used in co-operative and competitive games and sports.

Non-locomotor Skills are skills where the body is moving while remaining in one location (non-traveling). They include such skills as jumping and landing on one spot, balancing, twisting, and bending.

Other Cues and Conventions associated with effective communication include printing, font choices, graphics, illustrations, layout, and additional enhancements such as colour, sound, and movement.

Outcome is a statement of what children are expected to know, understand, and be able to do by the end of a particular grade.

Performance Cues provide information about specific components of a skill that help the performer move skillfully by transferring the cognitive understanding of the movement to the motor performance, thus increasing the potential for skillful movement.

Pragmatic Cues and Conventions refer to the style of language that is used in a given context and take into consideration the communication purpose, situation, and audience. The pragmatic cueing system is often considered to be the social aspect of language.

Semantic and Lexical Cues and Conventions refer to the meaning and structure of words.

Stewardship is the practice of responsibly tending to the environment.

Storytelling is both a gift, and a very old custom, sanctioned by Aboriginal people. In Aboriginal storytelling, there are many stories that are tied to the teachings of culture, ceremony, and spirituality.

Syntactical Cues and Conventions refer to the structure (word order) and parts of sentences, and the rules (e.g., subject-verb agreement) that govern the sentences.

Text is any form of communication, whether visual, oral, written, or multimedia (including digital media), that constitutes a coherent, identifiable unit or artefact (e.g., poem, poster, conversation, model) with a definable function. It refers to visual forms such as illustrations, videos, and computer displays; oral forms including conversations, speeches, dramatizations; and printed texts in their varied forms.

Textual Cues and Conventions refer to the type or kind of text and the features that are associated with its organization.

Treaty Education, at the Kindergarten level, includes developing understanding of promises, sharing, working together, and beginning to appreciate the relationship of people to each other and to the land.

Work includes paid and unpaid chores, volunteer activities, and labour, and is a matter of meeting responsibility as a member of a group.

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Feedback Form

The Ministry of Education welcomes your response to this curriculum and invites you to complete and return this feedback form.

Kindergarten Curriculum

1. Please indicate your role in the learning community:

- parent/caregiver teacher resource teacher
 guidance counsellor school administrator school board trustee
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 other _____

What was your purpose for looking at or using this curriculum?

2. a) Please indicate which format(s) of the curriculum you used:

- print
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b) Please indicate which format(s) of the curriculum you prefer:

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4. Please respond to each of the following statements by circling the applicable number.

The curriculum content is:	Strongly Agree	Agree	Disagree	Strongly Disagree
appropriate for its intended purpose	1	2	3	4
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clear and well organized	1	2	3	4
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informative	1	2	3	4

5. Explain which aspects you found to be:

Most useful:

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6. Additional comments:

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Name: _____

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Thank you for taking the time to provide this valuable feedback.

Please return the completed feedback form to:

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