

## Area of Learning: APPLIED DESIGN, SKILLS, AND TECHNOLOGIES Kindergarten–Grade 3

### BIG IDEAS

Designs grow out of natural curiosity.

Skills can be developed through play.

Technologies are tools that extend human capabilities.

### Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <p><b>Applied Design</b></p> <p><b>Ideating</b></p> <ul style="list-style-type: none"> <li>Identify needs and opportunities for designing, through exploration</li> <li>Generate ideas from their experiences and interests</li> <li>Add to others' ideas</li> <li>Choose an idea to pursue</li> </ul> <p><b>Making</b></p> <ul style="list-style-type: none"> <li>Choose tools and materials</li> <li>Make a <b>product</b> using known procedures or through modelling of others</li> <li>Use trial and error to make changes, solve problems, or incorporate new ideas from self or others</li> </ul> <p><b>Sharing</b></p> <ul style="list-style-type: none"> <li>Decide on how and with whom to <b>share</b> their product</li> <li>Demonstrate their product, tell the story of designing and making their product, and explain how their product contributes to the individual, family, community, and/or environment</li> <li>Use personal preferences to evaluate the success of their design solutions</li> <li>Reflect on their ability to work effectively both as individuals and collaboratively in a group</li> </ul> <p><b>Applied Skills</b></p> <ul style="list-style-type: none"> <li>Use materials, tools, and technologies in a safe manner in both physical and digital environments</li> <li>Develop their skills and add new ones through play and collaborative work</li> </ul> <p><b>Applied Technologies</b></p> <ul style="list-style-type: none"> <li>Explore the use of simple, available tools and <b>technologies</b> to extend their capabilities</li> </ul>	<p><i>Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies K–3 in combination with grade-level content from other areas of learning in cross-curricular activities to develop foundational mindsets and skills in design thinking and making.</i></p>

## BIG IDEAS

The mind and body work together when creating **works of art**.

Creative experiences involve an interplay between exploration, inquiry, and purposeful choice.

Dance, drama, music, and visual arts are each unique languages for creating and communicating.

The **arts** connect our experiences to the experiences of others.

## Learning Standards

Curricular Competencies	Content
<p><i>Students will be able to use creative processes to:</i></p> <p><b>Exploring and creating</b></p> <ul style="list-style-type: none"> <li>Choose <b>elements</b>, processes, materials, movements, technologies, tools, techniques, and environments of the arts</li> <li>Create artistic works collaboratively and as an individual, using ideas inspired by imagination, inquiry, experimentation, and <b>purposeful play</b></li> <li>Explore identity, place, culture, and belonging through arts experiences</li> <li>Explore relationships among cultures, communities, and the arts</li> </ul> <p><b>Reasoning and reflecting</b></p> <ul style="list-style-type: none"> <li>Observe, listen, describe, inquire, and predict how <b>artists</b> (dancers, actors, musicians, and visual artists) use processes, materials, movements, technologies, tools, and techniques</li> <li>Refine ideas, processes, and technical skills in a <b>variety of art forms</b></li> <li>Reflect on <b>creative processes</b> and make connections to personal experiences</li> <li>Connect knowledge and skills from other <b>areas of learning</b> in planning, creating, and interpreting works for art</li> </ul> <p><b>Communicating and documenting</b></p> <ul style="list-style-type: none"> <li>Apply learned skills, understandings, and processes in new contexts</li> <li>Interpret and communicate ideas using symbolism in the arts</li> <li>Express feelings, ideas, and experiences in creative ways</li> <li>Describe and respond to visual and performing art pieces and provide constructive feedback</li> <li>Experience, <b>document</b> and <b>share</b> creative works in a variety of ways</li> <li>Demonstrate increasingly sophisticated application and/or engagement of curricular content</li> </ul>	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> <li>elements in the arts, including but not limited to: <ul style="list-style-type: none"> <li><b>dance: body, space, dynamics, time, relationships, form</b></li> <li>drama: <b>character</b>, time, place, plot, tension</li> <li>music: beat/pulse, <b>duration, rhythm, tempo, pitch, timbre, dynamics, form, texture</b></li> <li>visual arts: elements of design: line, shape, space, texture, colour, <b>form; principles of design: pattern, repetition, rhythm</b>, contrast, emphasis</li> </ul> </li> <li>processes, materials, <b>technologies</b>, tools, and techniques to support arts activities</li> <li><b>notation</b> to represent sounds, ideas, and movement</li> <li>a variety of <b>dramatic forms</b></li> <li><b>image development strategies</b></li> <li><b>choreographic devices</b></li> <li><b>symbolism</b> as ways of creating and representing meaning</li> <li>traditional and contemporary <b>Aboriginal arts</b> and arts-making processes</li> <li>a variety of local <b>works of art</b> and artistic traditions from diverse cultures, communities, times, and places</li> <li><b>personal and collective responsibility</b> associated with creating, experiencing, or sharing in a safe learning environment</li> </ul>

## BIG IDEAS

Confidence develops through the process of self-discovery.

Strong communities are the result of being connected to family and community and working together toward common goals.

Effective collaboration relies on clear, respectful communication.

Everything we learn helps us to develop skills.

Communities include many different roles requiring many different skills.

Learning is a lifelong enterprise.

## Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <ul style="list-style-type: none"> <li>• Identify and appreciate their personal attributes, skills, interests, and accomplishments</li> <li>• Recognize the importance of positive relationships in their lives</li> <li>• Share ideas, information, personal feelings, and knowledge with others</li> <li>• Work respectfully and constructively with others to achieve common goals</li> <li>• Recognize the importance of learning in their lives and future careers</li> <li>• Set and achieve realistic learning goals for themselves</li> <li>• Identify and appreciate the roles and responsibilities of people in their schools, families, and communities</li> <li>• Demonstrate <b>effective work habits</b> and organizational skills appropriate to their level of development</li> <li>• Recognize the basic skills required in a variety of jobs in the community</li> </ul>	<p><i>Students are expected to know the following:</i></p> <p><b>Personal Development</b></p> <ul style="list-style-type: none"> <li>• <b>goal-setting strategies</b></li> <li>• <b>risk taking</b> and its role in self-exploration</li> </ul> <p><b>Connections to Community</b></p> <ul style="list-style-type: none"> <li>• <b>cultural and social awareness</b></li> <li>• roles and responsibilities at home, at school, and in the local community</li> <li>• jobs in the local community</li> </ul>

## BIG IDEAS

Language and **story** can be a source of creativity and joy.

**Stories** and other **texts** help us learn about ourselves, our families, and our communities.

**Stories** can be understood from different perspectives.

Using language in creative and playful ways helps us understand how language works.

Curiosity and wonder lead us to new discoveries about ourselves and the world around us.

## Learning Standards

Curricular Competencies	Content
<p><i>Using oral, written, visual, and digital <b>texts</b>, students are expected individually and collaboratively to be able to:</i></p> <p><b>Comprehend and connect (reading, listening, viewing)</b></p> <ul style="list-style-type: none"> <li>• <b>Read fluently at grade level</b></li> <li>• Use sources of information and <b>prior knowledge</b> to make meaning</li> <li>• Make connections between ideas from a variety of sources and <b>prior knowledge</b> to build understanding</li> <li>• Use developmentally appropriate <b>reading, listening, and viewing strategies</b> to make meaning</li> <li>• Recognize how different <b>texts</b> reflect different purposes.</li> <li>• <b>Engage actively as listeners, viewers, and readers</b>, as appropriate, to develop understanding of self, identity, and community</li> <li>• Explain the role that <b>story</b> plays in personal, family, and community identity</li> <li>• Use personal experience and knowledge to connect to <b>text</b> and make meaning</li> <li>• Recognize the <b>structure and elements of story</b></li> <li>• Show awareness of how <b>story in First Peoples cultures</b> connects people to family and community</li> <li>• Develop awareness of <b>how story in First Peoples cultures connects people to land</b></li> </ul> <p><b>Create and communicate (writing, speaking, representing)</b></p> <ul style="list-style-type: none"> <li>• <b>Exchange ideas and perspectives</b> to build shared understanding</li> <li>• Create <b>stories</b> and other <b>texts</b> to deepen awareness of self, family, and community</li> <li>• Plan and create a variety of <b>communication forms</b> for different purposes and audiences</li> <li>• Communicate using sentences and most conventions of Canadian spelling, grammar, and punctuation</li> <li>• Develop and apply expanding <b>word knowledge</b></li> <li>• Explore and appreciate aspects of First Peoples <b>oral traditions</b></li> <li>• Use <b>oral storytelling processes</b></li> </ul>	<p><i>Students are expected to know the following:</i></p> <p><b>Story/text</b></p> <ul style="list-style-type: none"> <li>• <b>elements of story</b></li> <li>• functions and genres of stories and other texts</li> <li>• <b>text features</b></li> <li>• <b>literary elements and devices</b></li> </ul> <p><b>Strategies and processes</b></p> <ul style="list-style-type: none"> <li>• <b>reading strategies</b></li> <li>• <b>oral language strategies</b></li> <li>• <b>metacognitive strategies</b></li> <li>• <b>writing processes</b></li> </ul> <p><b>Language features, structures, and conventions</b></p> <ul style="list-style-type: none"> <li>• <b>features of oral language</b></li> <li>• word patterns, word families</li> <li>• <b>legible handwriting</b></li> <li>• <b>sentence structure</b></li> <li>• <b>conventions</b></li> </ul>

## BIG IDEAS

Fractions are a type of **number** that can represent quantities.

Development of computational fluency in addition, subtraction, multiplication, and division of whole numbers requires flexible decomposing and composing.

Regular increases and decreases in **patterns** can be identified and used to make generalizations.

Standard units are used to describe, measure, and compare **attributes** of objects' shapes.

The likelihood of possible **outcomes** can be examined, compared, and interpreted.

## Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to do the following:</i></p> <p><b>Reasoning and analyzing</b></p> <ul style="list-style-type: none"> <li>Use reasoning to explore and make connections</li> <li><b>Estimate reasonably</b></li> <li>Develop <b>mental math strategies</b> and abilities to make sense of quantities</li> <li>Use <b>technology</b> to explore mathematics</li> <li><b>Model</b> mathematics in contextualized experiences</li> </ul> <p><b>Understanding and solving</b></p> <ul style="list-style-type: none"> <li>Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving</li> <li>Visualize to explore mathematical concepts</li> <li>Develop and use <b>multiple strategies</b> to engage in problem solving</li> <li>Engage in problem-solving experiences that are <b>connected</b> to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures</li> </ul> <p><b>Communicating and representing</b></p> <ul style="list-style-type: none"> <li><b>Communicate</b> mathematical thinking in many ways</li> <li>Use mathematical vocabulary and language to contribute to mathematical discussions</li> <li><b>Explain and justify</b> mathematical ideas and decisions</li> <li>Represent mathematical ideas in <b>concrete, pictorial, and symbolic forms</b></li> </ul> <p><b>Connecting and reflecting</b></p> <ul style="list-style-type: none"> <li><b>Reflect</b> on mathematical thinking</li> <li>Connect mathematical concepts to each other and to <b>other areas and personal interests</b></li> <li><b>Incorporate</b> First Peoples worldviews and perspectives to <b>make connections</b> to mathematical concepts</li> </ul>	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> <li><b>number concepts to 1000</b></li> <li><b>fraction concepts</b></li> <li><b>addition and subtraction</b> to 1000</li> <li>addition and subtraction facts to 20 (emerging <b>computational fluency</b>)</li> <li><b>multiplication and division</b> concepts</li> <li>increasing and decreasing <b>patterns</b></li> <li><b>pattern rules</b> using words and numbers, based on concrete experiences</li> <li>one-step addition and subtraction <b>equations</b> with an unknown number</li> <li>measurement, using <b>standard units</b> (linear, mass, and capacity)</li> <li><b>time</b> concepts</li> <li>construction of <b>3D shapes</b></li> <li><b>one-to-one correspondence</b> with bar graphs, pictographs, charts, and tables</li> <li>likelihood of <b>simulated events</b>, using comparative language</li> <li><b>financial literacy</b> — fluency with coins and bills to 100 dollars, and earning and payment</li> </ul>

## BIG IDEAS

Daily participation in physical activity at moderate to vigorous intensity levels benefits all aspects of our well-being.

Movement skills and strategies help us learn how to participate in different types of physical activity.

Adopting healthy personal practices and safety strategies protects ourselves and others.

Having good communication skills and managing our emotions enables us to develop and maintain healthy relationships.

Our physical, emotional, and mental health are interconnected.

## Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <p><b>Physical literacy</b></p> <ul style="list-style-type: none"> <li>Develop and apply a variety of fundamental movement skills in a variety of physical activities and environments</li> <li>Apply a variety of movement concepts and strategies in different physical activities</li> <li>Apply methods of monitoring exertion levels in physical activity</li> <li>Develop and demonstrate safety, fair play, and leadership in physical activities</li> <li>Identify and explain factors that contribute to positive experiences in different physical activities</li> </ul> <p><b>Healthy and active living</b></p> <ul style="list-style-type: none"> <li>Participate daily in physical activity at moderate to vigorous intensity levels</li> <li>Identify and describe opportunities for and potential challenges to being physically active at school, at home, and in the community</li> <li>Explore and describe strategies for making healthy eating choices in a variety of settings</li> <li>Describe ways to access information on and support services for a variety of health topics</li> <li>Explore and describe strategies for pursuing personal healthy-living goals</li> </ul> <p><b>Social and community health</b></p> <ul style="list-style-type: none"> <li>Identify and describe avoidance or assertiveness strategies to use in unsafe and/or uncomfortable situations</li> <li>Describe and apply strategies for developing and maintaining positive relationships</li> <li>Explain how participation in outdoor activities supports connections with the community and environment</li> </ul> <p><b>Mental well-being</b></p> <ul style="list-style-type: none"> <li>Identify and apply strategies that promote mental well-being</li> <li>Describe physical, emotional, and social changes as students grow older</li> <li>Describe factors that influence mental well-being and self-identity</li> </ul>	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> <li>proper technique for fundamental movement skills, including <b>non-locomotor</b>, <b>locomotor</b>, and <b>manipulative</b> skills</li> <li><b>movement concepts</b> and <b>strategies</b></li> <li>ways to <b>monitor physical exertion levels</b></li> <li>different types of physical activities, including <b>individual and dual activities</b>, <b>rhythmic activities</b>, and <b>games</b></li> <li>practices that promote health and well-being, including those relating to <b>physical activity</b>, <b>sleep</b>, and <b>illness prevention</b></li> <li><b>nutrition</b> and <b>hydration</b> choices to support different activities and overall health</li> <li><b>strategies for accessing health information</b></li> <li><b>strategies and skills to use in potentially hazardous, unsafe, or abusive situations</b></li> <li><b>nature and consequences of bullying</b></li> <li>effects of different <b>substances</b>, and strategies for preventing personal harm</li> <li>relationship between worries and fears</li> <li><b>factors that influence self-identity</b></li> </ul>

## BIG IDEAS

Living things are diverse, can be grouped, and interact in their ecosystems.

All matter is made of particles.

Thermal energy can be produced and transferred.

Wind, water, and ice change the shape of the land.

## Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <p><b>Questioning and predicting</b></p> <ul style="list-style-type: none"> <li>• Demonstrate curiosity and a sense of wonder about the world</li> <li>• Observe objects and events in familiar contexts</li> <li>• Identify questions about familiar objects and events that can be investigated scientifically</li> <li>• Make predictions based on prior knowledge</li> </ul> <p><b>Planning and conducting</b></p> <ul style="list-style-type: none"> <li>• Suggest ways to plan and conduct an inquiry to find answers to their questions</li> <li>• Consider ethical responsibilities when deciding how to conduct an experiment</li> <li>• Safely use appropriate tools to make observations and measurements, using formal measurements and digital technology as appropriate</li> <li>• Make observations about living and non-living things in the local environment</li> <li>• Collect simple data</li> </ul> <p><b>Processing and analyzing data and information</b></p> <ul style="list-style-type: none"> <li>• Experience and interpret the local environment</li> <li>• Identify First Peoples perspectives and knowledge as sources of information</li> <li>• Sort and classify data and information using drawings or provided tables</li> <li>• Use tables, simple bar graphs, or other formats to represent data and show simple patterns and trends</li> <li>• Compare results with predictions, suggesting possible reasons for findings</li> </ul>	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> <li>• <b>biodiversity</b> in the local environment</li> <li>• <b>the knowledge of local First Peoples of ecosystems</b></li> <li>• <b>energy is needed for life</b></li> <li>• <b>matter is anything that has mass and takes up space</b></li> <li>• <b>atoms are building blocks of matter</b></li> <li>• <b>sources of thermal energy</b></li> <li>• <b>transfer of thermal energy</b></li> <li>• major local <b>landforms</b></li> <li>• local First Peoples knowledge of local landforms</li> <li>• observable changes in the local environment caused by erosion and deposition by wind, water, and ice</li> </ul> <p style="text-align: right;"><b>(continued...)</b></p>

Learning Standards (continued)

Curricular Competencies	Content
<p><b>Evaluating</b></p> <ul style="list-style-type: none"> <li>• Make simple inferences based on their results and prior knowledge</li> <li>• Reflect on whether an investigation was a fair test</li> <li>• Demonstrate an understanding and appreciation of evidence</li> <li>• Identify some simple environmental implications of their and others' actions</li> </ul> <p><b>Applying and innovating</b></p> <ul style="list-style-type: none"> <li>• Contribute to care for self, others, school, and neighbourhood through personal or collaborative approaches</li> <li>• Co-operatively design projects</li> <li>• Transfer and apply learning to new situations</li> <li>• Generate and introduce new or refined ideas when problem solving</li> </ul> <p><b>Communicating</b></p> <ul style="list-style-type: none"> <li>• Represent and communicate ideas and findings in a variety of ways, such as diagrams and simple reports, using digital technologies as appropriate</li> <li>• Express and reflect on personal or shared experiences of <b>place</b></li> </ul>	



## BIG IDEAS

Learning about indigenous peoples nurtures multicultural awareness and respect for diversity.

People from diverse cultures and societies share some common experiences and aspects of life.

Indigenous knowledge is passed down through oral history, traditions, and collective memory.

Indigenous societies throughout the world value the well-being of the self, the land, spirits, and ancestors.

## Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <ul style="list-style-type: none"> <li>• Use Social Studies inquiry processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions</li> <li>• Explain why people, events, or places are significant to various individuals and groups (significance)</li> <li>• Ask questions, make inferences, and draw conclusions about the content and features of different types of sources (evidence)</li> <li>• Sequence objects, images, or events, and explain why some aspects change and others stay the same (continuity and change)</li> <li>• Recognize causes and consequences of events, decisions, or developments (cause and consequence)</li> <li>• Explain why people’s beliefs, values, worldviews, experiences, and roles give them different perspectives on people, places, issues, or events (perspective)</li> <li>• Make value judgments about events, decisions, or actions, and suggest lessons that can be learned (ethical judgment)</li> </ul>	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> <li>• cultural characteristics and ways of life of local First Peoples and global indigenous peoples</li> <li>• aspects of life shared by and common to peoples and cultures</li> <li>• interconnections of cultural and technological innovations of global and local indigenous peoples</li> <li>• governance and social organization in local and global indigenous societies</li> <li>• oral history, traditional stories, and artifacts as evidence about past First Peoples cultures</li> <li>• relationship between humans and their environment</li> </ul>