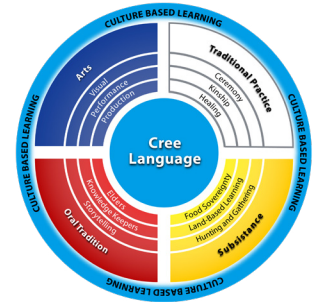



































Science









 Knowledge	Understanding	Skills & Procedures	ᑭᐱᐱᐱᐱ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA				
Matter(M) : Understandings of the physical world are deepened through investigating matter and energy.				
GUIDING QUESTION				
How can properties of an object be altered?				
LEARNING OUTCOME				
1M 1.1 Students analyze properties of objects and investigate how they can be changed.				
<p>Objects take up space and have mass.</p> <p>Size is a relative property of objects that indicates how big or small something is.</p> <p>Measurable properties of objects include</p> <ul style="list-style-type: none"> • length • how much flat space an object covers (area) • weight (mass) <p>Weight is the heaviness of an object.</p> <p>Tools, such as balance scales and magnifying glasses, can be used to examine properties of objects and materials.</p>	<p>Objects have measurable properties.</p>	<p>Identify measurable properties of objects.</p> <p>Directly compare the length, area, and weight of various objects.</p> <p>Use various tools safely when examining the properties of objects.</p>	<p>   Common Tree Names: Northern Boreal Series (9 videos)</p> <p> Trapping - Introduction to Fur-Bearing Animals Series (6 videos)</p> <p> Legend of Birch Tree</p> <p>  Legend of Poplar</p> <p> Legend of Willow</p> <p>  Dreamcatcher (Legend of Willow)</p> <p>  Creation Stories: Animal Features</p>	













Knowledge	Understanding	Skills & Procedures	ᑭᐱᑦ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME 1M 1.2 Students analyze properties of objects and investigate how they can be changed.				
<p>Properties that can be changed include</p> <ul style="list-style-type: none"> length area weight (mass) shape texture <p>Actions that physically change the properties of an object include</p> <ul style="list-style-type: none"> bending twisting stretching cutting breaking <p>Not all objects respond the same way to bending, twisting, stretching, cutting, or breaking.</p>	<p>Physical changes to objects do not change what the objects are made of.</p>	<p>Predict how actions can physically change properties of various objects.</p> <p>Explore actions that physically change properties of various objects.</p> <p>Describe physical changes that result from various actions.</p> <p>Discuss why physical changes do not change what an object is made of.</p>	<p> Trapping - Skinning and Pelt Preparation Series (6 videos) (focus on shape)</p> <p>  Legend of Rabbit – Pussywillows (physical changes from various actions)</p>	
ORGANIZING IDEA Energy (E): Understandings of the physical world are deepened through investigating matter and energy.				
GUIDING QUESTION How can movement of objects and animals be understood?				
LEARNING OUTCOME 1E 1.1 Students investigate the direction, pathway, and speed of moving objects.				
<p>Directions of movement can include</p> <ul style="list-style-type: none"> up down forward backward sideways toward away from <p>[continued...]</p>	<p>Movement consists of direction, a pathway, and speed.</p>	<p>Observe and describe the direction, pathway, and speed of objects or animals.</p> <p>Conduct an investigation to determine how objects move.</p> <p>Describe and record ways objects or animals move along different pathways.</p>	<p> Trapping - Introduction to Fur-Bearing Animals Series (6 videos) (focus on behaviour)</p> <p>  Creation Stories: Animal Features</p>	<p> "Finding Moose," 2022 and "Raven, Rabbit, Deer," 2020, by Sue Farrell Holler (Author), and Jennifer Farla (Illustrator).</p>










 Knowledge	Understanding	Skills & Procedures	 Nehiyaw Ways of Knowing	Other Suggestions
<p>[continued...]</p> <p>A movement pathway is the path an object or animal follows when it moves.</p> <p>Movement pathways can be</p> <ul style="list-style-type: none"> • straight • curved • spiral • side-to-side <p>Objects or animals move along pathways in a variety of ways, such as</p> <ul style="list-style-type: none"> • rolling • bouncing • sliding <p>Speed can be described as</p> <ul style="list-style-type: none"> • fast • slow • changing • not changing 			<p> Trapping - Introduction to Fur-Bearing Animals Series (6 videos) (focus on behaviour)</p> <p>  Creation Stories: Animal Features</p> <p>   Trapping and Snares – Beaver Series (7 videos)</p>	<p>Compare how animals run, fly, walk, and swim; some move in straight, curved, spiral and side-to-side pathways.</p>
LEARNING OUTCOME 1E 1.2 Students investigate the direction, pathway, and speed of moving objects.				
<p>The movement of objects can be influenced by</p> <ul style="list-style-type: none"> • the shape of the object • the materials the object is made from • the surface texture of the object • interactions with other objects <p>Wheels can make objects easier to move.</p>	<p>The movement of objects can be influenced in a variety of ways.</p>	<p>Demonstrate how the movement of objects can be influenced.</p>		<p>Investigate influences such as</p> <ul style="list-style-type: none"> • Wind and weather changes on smoke/ fire • Signs that weather will change (aspen leaves flipping) <p>Compare travois to Red River cart.</p>





Knowledge	Understanding	Skills & Procedures	ᑭᑦᑲᑦᑲᑦ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA				
Earth System (ES): Understandings of the living world, Earth, and space are deepened through investigating natural systems and their interactions.				
GUIDING QUESTION				
In what ways can environments change?				
LEARNING OUTCOME				
1ES 1.1 Students analyze environments and investigate interactions and changes.				
<p>The four seasons in Alberta are</p> <ul style="list-style-type: none"> • summer • autumn or fall • winter • spring <p>Some places have fewer than four seasons, such as</p> <ul style="list-style-type: none"> • two seasons: rainy and dry • three seasons: cool or cold, rainy, and dry <p>Many seasonal changes appear in the environment, such as</p> <ul style="list-style-type: none"> • snow covering the ground • snow melting the surface of lakes and other bodies of water • rivers flowing fast or slow <p>Seasonal changes appear in plants and animals, such as</p> <ul style="list-style-type: none"> • camouflage in animals • leaves changing colour and falling • flowers blooming • crops and plants greening and growing 	<p>Changes in environments include seasonal changes.</p>	<p>Observe seasonal changes in local environments over time.</p> <p>Document signs of seasonal change over time.</p> <p>Share personal experiences related to seasons.</p> <p>Discuss how changes in the appearance of environments, plants, and animals are related to the seasons.</p> <p>Represent an environment in different seasons to show environmental changes.</p>	<p> Orienteering Series (4 videos)</p> <p>  Legend of Night and Day</p> <p> Eclipse - How Coyote Snared the Sun</p>	<p> "When the Trees Crackle with Cold: A Cree Seasons Activity Book," by Miriam Johnson-Laxdal, et al, 2018.</p>


Knowledge	Understanding	Skills & Procedures	ᑭᑦᑎᑦᑎᑦ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME				
1ES 1.2 Students analyze environments and investigate interactions and changes.				
<p>Migration is the regular movement patterns of animals from one area to another, usually in response to seasonal change.</p> <p>Many animals migrate, such as</p> <ul style="list-style-type: none"> • whales • geese • polar bears • butterflies • caribou <p>Hibernation allows animals to survive the winter with little or no food, usually by sleeping for long periods of time.</p> <p>Many animals hibernate in winter, such as</p> <ul style="list-style-type: none"> • black bears and grizzly bears • groundhogs • some types of squirrels <p>Environments can undergo sudden changes, such as</p> <ul style="list-style-type: none"> • storms • floods • fires • winds 	<p>Seasonal or sudden changes can affect the behaviour of animals.</p>	<p>Investigate animal behaviour throughout the seasons, including migration and hibernation.</p> <p>Share personal experiences related to sudden changes in the environment.</p>	<p> Ducks and Geese Series: Identifying Different Common Ducks (5 videos)</p> <p> Legend of Bear and Grass</p>	
LEARNING OUTCOME				
1ES 1.3 Students analyze environments and investigate interactions and changes.				
<p>Information can be gathered from environments using the senses.</p>	<p>Environments are observed and understood using the senses.</p>	<p>Describe various environments, drawing from information gathered using the senses.</p>	<p> Orienteering Series: Weather Indicators</p>	






Knowledge	Understanding	Skills & Procedures	ᑭᑭᑭᑭ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME				
1ES 1.4 Students analyze environments and investigate interactions and changes.				
<p>Seasonal changes may affect a variety of choices and activities, such as</p> <ul style="list-style-type: none"> • clothing choices • recreational activities • Indigenous ceremonies • hunting and gathering 	<p>Seasonal changes influence decisions about daily activities.</p>	<p>Describe how seasonal changes affect decisions about daily activities.</p>	<p> Common Seasonal Activities – Seasonal Round</p>	
LEARNING OUTCOME				
1ES 1.5 Students analyze environments and investigate interactions and changes.				
<p>The responsibility to care for environments is shared by all people and is fulfilled by showing respect for and protecting all aspects of nature.</p> <p>For First Nations, Métis, and Inuit, a sense of responsibility toward nature can be connected to place and traditional teachings for future generations, such as taking only what is needed.</p>	<p>Caring for nature comes from a sense of responsibility.</p>	<p>Discuss benefits of spending time in nature.</p> <p>Identify personal and group actions that demonstrate responsibility and care for nature.</p> <p>Discuss and reflect on First Nations, Métis, and Inuit traditional teachings that demonstrate a sense of responsibility to care for nature.</p>	<p> Moose, Elk, and Deer Calling Series: Hunting Protocols and Stewardship</p> <p> Trickster and the Ducks</p>	

 Knowledge	Understanding	Skills & Procedures	ᑭᑦᑲᑦᑲᑦ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA				
Living Systems (LS): Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.				
GUIDING QUESTION				
How do plants and animals survive?				
LEARNING OUTCOME				
1LS 1.1 Students investigate and examine the needs of plants and animals.				
<p>Plants are living things that can grow and make their own food.</p> <p>Plants usually cannot move from place to place.</p> <p>Animals are living things that can grow and that need to find food.</p> <p>Animals are usually able to move from place to place.</p> <p>Plants and animals exist in all shapes and sizes.</p> <p>Humans are part of nature and are classified as animals.</p>	<p>Plants and animals share similarities and have differences.</p>	<p>Share examples of plants and animals native to Alberta and Canada.</p> <p>Observe and describe similarities and differences between plants and animals.</p>	<p>   Common Tree Names: Northern Boreal Series (9 videos)</p> <p> Legend of Birch Tree</p>	
LEARNING OUTCOME				
1LS 1.2 Students investigate and examine the needs of plants and animals.				
<p>A variety of plants and animals exist and are dispersed over Earth.</p> <p>Diverse plants and animals can be found in many environments in Alberta, such as</p> <ul style="list-style-type: none"> • forests • prairies • lakes and rivers • mountains <p>Basic needs of plants and animals include</p> <ul style="list-style-type: none"> • food • water • air • shelter 	<p>Plants and animals require environments that allow them to meet their needs.</p>	<p>Represent plants and animals in various environments.</p> <p>Determine how a local environment meets the basic needs of plants and animals.</p> <p>Discuss the movement of local animals from place to place to meet their needs.</p>	<p>   Common Tree Names: Northern Boreal Series (9 videos)</p> <p> Rolling Head (younger version)</p> <p> Legend of Birch Tree</p>	<p> Learn Alberta Science Grade 1 Lesson Plan</p> <p> Project WILD Activity – Oh! Deer (water, food, shelter; basic needs)</p>

Knowledge	Understanding	Skills & Procedures	ᑭᓴᓴᑦ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME 1LS 1.3 Students investigate and examine the needs of plants and animals.				
<p>Ways humans can help meet the needs of plants or animals include</p> <ul style="list-style-type: none"> • watering plants • taking care of domestic animals • respecting environments <p>Ways that plants and animals, or their parts, help meet the needs of humans include providing</p> <ul style="list-style-type: none"> • air for breathing • food • clothing • shelter • medicine • connection (social/emotional) 	<p>Humans, other animals, and plants depend on each other to meet their needs.</p>	<p>Describe personal experiences related to how humans take care of plants and animals.</p> <p>Discuss how humans depend on plants and animals to meet their basic needs.</p> <p>Identify products made by various cultures, including local First Nations, Métis, or Inuit, that use plant and animal parts.</p>	<p> Moose, Elk, and Deer Calling Series: Hunting Protocols and Stewardship</p> <p>   Harvesting Medicines Series::</p> <ul style="list-style-type: none"> • Protocol on Herb Gathering • Harvesting Bear Fat <p>  How Medicines Came to Man</p>	
ORGANIZING IDEA Computer Science (CS): Problem solving and scientific inquiry are developed through the knowledgeable application of creativity, design, and computational thinking.				
GUIDING QUESTION How can instructions affect outcomes?				
LEARNING OUTCOME 1CS 1.1 Students follow instructions and relate them to outcomes.				
<p>Instructions are directions that can be followed and given in various forms, including verbal, audio, visual, and written.</p>	<p>The form in which instructions are given may not affect the outcome.</p>	<p>Follow instructions with two or three steps given in different forms.</p>	<p>   Moose, Elk, and Deer Calling Series: How to Call a Moose</p>	

 Knowledge	Understanding	Skills & Procedures	ᑭᑦᑲᑦᑲᑦ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME				
1CS 1.1 Students follow instructions and relate them to outcomes.				
<p>Many types of instructions need to be in a specific order, such as</p> <ul style="list-style-type: none"> directions recipes computer programs safety protocols 	<p>Instructions are ordered in a way that will produce a desired outcome.</p>	<p>Determine if instructions with two or three steps given in different orders still produce the desired outcome.</p> <p>Sequence two or three instruction steps to achieve a desired outcome.</p> <p>Exchange ideas to create three-step instructions that achieve a desired outcome.</p>	 <p>Moose, Elk, and Deer Calling Series: How to Call a Moose</p>	
LEARNING OUTCOME				
1CS 1.3 Students follow instructions and relate them to outcomes.				
<p>Following instructions is a way to demonstrate respect and safety during investigations.</p>	<p>Instructions help to keep people safe.</p>	<p>Follow instructions during investigations.</p>	 <p>Fire Teachings</p>  <p>Whiskeyjack and the Long Winter</p>	

 Knowledge	Understanding	Skills & Procedures	ᑭᐱᐱᑦᑭᑦ Nehiyaw Ways of Knowing	Other Suggestions
ORGANIZING IDEA Scientific Method (SM): Investigation of the physical world is enhanced through the use of scientific methods that attempt to remove human biases and increase objectivity.				
GUIDING QUESTION What is investigation?				
LEARNING OUTCOME 1SM 1.1 Students engage in and describe investigation.				
<p>The skills and knowledge required to carry out an investigation can be learned.</p> <p>Investigations can be sparked by curiosity.</p> <p>Investigations are carried out by a variety of individuals or groups, such as</p> <ul style="list-style-type: none"> • teachers • students • scientists • police • doctors <p>Steps followed during an investigation include</p> <ul style="list-style-type: none"> • asking questions • making predictions • gathering data • forming conclusions <p>A prediction is a likely answer to a question based on current understanding.</p> <p>A conclusion is an answer to a question based on gathered data.</p>	<p>Investigations are carried out to try to understand the world.</p>	<p>Ask a question sparked by curiosity.</p> <p>Predict the answer to a question.</p> <p>Describe steps of an investigation.</p> <p>Demonstrate safety and respect during investigations.</p>		

 Knowledge	Understanding	Skills & Procedures	ᑭᐱᐱᑦ Nehiyaw Ways of Knowing	Other Suggestions
LEARNING OUTCOME 1CS 1.2 Students engage in and describe investigation.				
<p>Observations can be gathered using the senses.</p> <p>Observations may be recorded as data in many ways, including</p> <ul style="list-style-type: none"> • words • pictures • numbers 	<p>Investigation involves making observations and recording them as data.</p>	<p>Gather observations using various senses to answer questions.</p> <p>Record observations in a provided template.</p>	<p> Ducks and Geese: Identifying Different Common Ducks Series (5 videos)</p> <p> Trickster and the Ducks</p>	
LEARNING OUTCOME 1CS 1.3 Students engage in and describe investigation.				
<p>Observations can be made by using the senses.</p> <p>Observations can be recorded as data in many ways, such as</p> <ul style="list-style-type: none"> • words • drawings • photographs • numbers and counts • sound and video recordings <p>Scientists can keep records of data in record books or computers.</p>	<p>Recording data accurately helps ensure observations can be referenced in the future.</p>	<p>Make observations using various senses.</p> <p>Record observations as data.</p> <p>Reflect on recorded data to make conclusions.</p>	<p> Ducks and Geese: Identifying Different Common Ducks Series (5 videos)</p> <p> Trickster and the Ducks</p>	