Alberta Grade 6 Science Curriculum Comparison Document

2023 - 2024

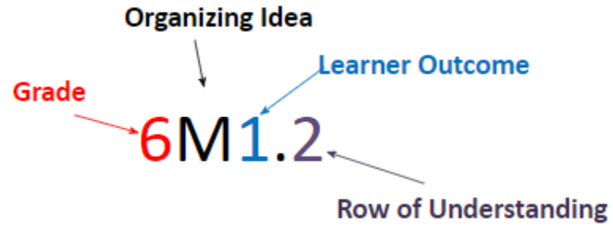
Alberta Regional Consortia

The purpose of this document is to provide you with an opportunity to review the previous curriculum (1996) and compare it with the new 2023 Science Curriculum. You will find the old curricular outcomes on the left side of your page and the new one to the right.

When reviewing for the first time, read the document through completely to familiarize yourself with the contents.

On second review, make notes along margins that help to identify familiar knowledge concepts or those which are very new.

Repeat this process for the Skill Concepts (Verbs). Consider how the verbs will inform your practice and assessment.



Grade 6 Curriculum Comparison to the New Alberta Science Curriculum

M = Matter **E= Energy** **ES = Earth Systems** **S = Space** **LS = Living Systems** **CS = Computer Science** **SM = Scientific Method.**

Outcomes from 1996 Curriculum	**Learner Outcomes**	**Understandings** from New Curriculum, **Knowledge**	**Skills and Procedures**
Possible Links to the 1996 Science Curriculum	**Matter(M) : Matter:** Understandings of the physical world are deepened by investigating matter and energy. **Guiding Question:** How can the particles of matter be influenced by heating or cooling?		
Grade 7 **Unit C: Heat and Temperature (Social and Environmental Emphasis)** **Grade 2** **Topic D: Hot and Cold Temperature** 2–9 Recognize the effects of heating and cooling, and identify methods for heating and cooling.	**LEARNER OUTCOME** 6M 1.1 Students investigate how particles of matter behave when heated or cooled and analyze effects on solids, liquids, and gasses.	**UNDERSTANDING** Particles change speed and distance from each other when heated or cooled **KNOWLEDGE** The particle model of matter states that heating matter causes particles to move faster. As particles move faster, the attractive forces between them weaken and the space between them increases. The particle model of matter states that cooling matter causes particles to move slower. As particles slow down, the attractive forces between them increase and the space between them decreases.	**SKILLS and PROCEDURES** Discuss the connection between movement of particles and temperature in degrees Celsius. Explain phase changes of matter when heated or cooled using the particle model of matter. Conduct a controlled experiment to prove the mass of a substance is the same after a phase change.

		A phase change is a change from one state of matter to another. During a phase change, the volume of the matter may change but the mass remains constant. .	
	LEARNER OUTCOME 6M 1.2 Students investigate how particles of matter behave when heated or cooled and analyze effects on solids, liquids, and gasses.	**UNDERSTANDING** Expansion and contraction of matter can be the basis for the design of tools that measure temperature. **KNOWLEDGE** A liquid thermometer uses the expansion or contraction of matter to measure temperature using a scale. Scientists use the Celsius scale to measure temperature in degrees Celsius (°C). The Celsius scale is based on the changes of state of water and defines 0°C as the melting/freezing point of water and 100°C as the boiling point of water.	**SKILLS and PROCEDURES** Describe how a liquid thermometer works. Create a tool that measures temperature based on expansion and contraction of a liquid. Relate the melting/freezing and boiling points of water to the Celsius scale. Identify safety practices associated with measuring temperature and the use of measurement tools.
	LEARNER OUTCOME 6M 1.3 Students investigate how particles of matter behave when heated or cooled and analyze effects on solids, liquids, and gasses.	**UNDERSTANDING** Most matter expands when heated and contracts when cooled. **KNOWLEDGE** Expansion is the typical response materials have to heating. Contraction is the typical response materials have to cooling. Water has the unusual property of having greater volume in solid form than in liquid form. Because of water's unusual property, it is less dense in solid form than in liquid form. The surface of a body of water freezes when the temperature of the water drops below the freezing	**SKILLS and PROCEDURES** Conduct an investigation to demonstrate that liquid water is denser than solid water. Hypothesize the effect on aquatic life if solid water were denser than liquid water. Explain the significance of expansion or contraction in the design and construction of structures.

		point. The frozen surface of a large body of water forms an insulating sheet of ice that protects aquatic life. A material's response to temperature change requires consideration when designing and constructing infrastructure, including • sidewalks • bridges • roads.	
Possible Links to the 1996 Science Curriculum	**Energy (E): Understandings of the physical world are deepened by investigating matter and energy.** **Guiding Question:** In what ways can interactions lead to physical change?		
Grade 8 **Unit D: Mechanical Systems (Science and Technology Emphasis)** **Grade 7** **Unit D: Structures and Forces (Science and Technology Emphasis)**	**LEARNER OUTCOME** 6E 1.1 Students analyze forces and relate them to interactions between objects.	**UNDERSTANDING** External and internal forces can change the shape, size, or position of objects that interact **KNOWLEDGE** Forces within an object are internal forces, including • tension • compression • shear • torsion Forces that act on an object from outside the object are external forces, including • applied force • friction • elastic or spring force External forces cause internal forces within an object. An applied force is exerted on an object by a person or another object. Friction forces oppose the movement of objects when those objects make contact with other objects or surfaces. Tension is a force exerted by pulling on a string or rope that is connected to an object. Elastic or spring force is exerted on any object that is in contact with a compressed or stretched elastic object or spring.	**SKILLS and PROCEDURES** Conduct investigations to answer questions about the effects of external and internal forces on objects during an interaction. Identify forces that act on an object during an interaction. Use materials, tools, and equipment safely while experimenting with forces in interactions.

		Compression is a force exerted on an object that squeezes, squashes, or compacts the object. Shear is a force that pushes parts of an object in opposite directions, resulting in bending or breaking. Torsion is a force that twists an object.	
	LEARNER OUTCOME 6E 1.2 Students analyze forces and relate them to interactions between objects.	**UNDERSTANDING** Changes in an object's shape depend on its properties. **KNOWLEDGE** Plasticity is a property that leads to permanent changes in an object's shape; e.g., bending a paper clip. Elasticity is a property that enables temporary changes in an object's shape; e.g., stretching a rubber band.	**SKILLS and PROCEDURES** Differentiate between temporary and permanent changes. Test the plasticity and elasticity of objects.
Grade 4 **Topic C: Building Devices and Vehicles that Move** 4–7 Construct a mechanical device for a designated purpose, using materials and design suggestions provided. Note: One or more components of the task will be open-ended and require students to determine the specific procedure to be followed. 4–8 Explore and evaluate variations to the design of a mechanical device, demonstrating that control is an important element in the design and construction of that device.	**LEARNER OUTCOME** 6E 1.3 Students analyze forces and relate them to interactions between objects.	**UNDERSTANDING** For every action force, there is an equal and opposite reaction force. (Newton's Third Law) **KNOWLEDGE** An action force is exerted on an object in a particular direction. A reaction force acts in the opposite direction of an action force. One object experiences an action force while another object experiences a reaction force in an interaction.	**SKILLS and PROCEDURES** Demonstrate and represent an action force and its reaction force in various interactions.
Possible Links to the 1996 Science	**Energy (E): Understandings of the physical world are deepened by investigating matter and energy.**		

Curriculum	**Guiding Question:** How are energy resources used?		
	LEARNER OUTCOME 6E 2.1 Students investigate energy resources and explain factors that influence their use.	**UNDERSTANDING** The advantages and disadvantages of several factors influence selection of energy resources. **KNOWLEDGE** Factors that influence selection of energy resources include • availability and accessibility • societal impacts • economic impacts • environmental impacts	**SKILLS and PROCEDURES** Investigate factors that influence selection of energy resources. Examine factors that influence selection of principal energy resources used in Alberta.
	LEARNER OUTCOME 6E 2.2 Students investigate energy resources and explain factors that influence their use.	**UNDERSTANDING** Energy resources can be managed for use in daily living. **KNOWLEDGE** Responsible management of energy resources includes • minimal disruption to nature • restoration of extraction areas • waste management practices • respect for land and resource rights Some energy resources can be used before processing, such as • wood • wind • water Some energy resources can be used after processing, such as • wind • solar • fossil fuels • nuclear • hydro • biofuel Many energy resources are processed into electricity. Some energy resources can be used before processing and after processing; e.g., wind can be used before processing to sail a boat and after processing as electricity.	**SKILLS and PROCEDURES** Examine management of energy resources in various contexts. Classify energy resources as being used before or after processing. Compare the use of an energy resource before and after processing. Discuss ways energy resources are used by individuals or communities in daily life. Design a device that uses an energy resource, before or after processing, to solve a problem.

		Energy resources can be used in daily life in various ways, such as ● heating and cooling ● lighting ● cooking ● transportation	
Possible Links to the 1996 Science Curriculum	**Living Systems (S): Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.** **Guiding Question:** In what ways are ecosystems complex?		
Grade 5 **Topic E: Wetland Ecosystems** 5–10 Describe the living and nonliving components of a wetland ecosystem and the interactions within and among them. **Grade 7 Science** **Unit A: Interactions and Ecosystems (Social and Environmental Emphasis)**	**LEARNER OUTCOME** 6 LS 1.1 Students investigate the characteristics and components of and interactions within ecosystems..	**UNDERSTANDING** The components and characteristics of an ecosystem affect the diversity of the organisms that live in it. **KNOWLEDGE** Ecosystems are complex systems of biotic and abiotic components. Biotic components of an ecosystem include plants, animals, and micro- organisms. Abiotic components of an ecosystem include ● energy from the Sun ● water ● soil ● air ● temperature All components of an ecosystem influence each other either directly or indirectly; e.g., ● animals rely on plants for food ● plants need water to grow ● energy from the Sun affects temperature ● decomposers help return nutrients to the soil There are many types of ecosystems, such as ● desert	**SKILLS and PROCEDURES** Represent and connect the biotic and abiotic components of an ecosystem. Locate and responsibly examine a local ecosystem in nature using appropriate materials and tools. Relate the preservation of various ecosystems to possible actions that address climate change. Create a model or simulation to represent a chosen ecosystem and its characteristics. Compare the characteristics of two ecosystems. Examine the diversity of animals and plants in various ecosystems in relation to abiotic components.

		• arctic • grassland • wetland • forest • freshwater Characteristics of ecosystems include • climate patterns • size • vegetation structure • animal populations • geographic location Some ecosystems store greenhouse gases and prevent them from being released into the atmosphere, such as • wetlands • oceans • forest • grasslands Ecosystems can be examined using digital or non-digital tools, such as still-image and video cameras and magnifying devices. Characteristics of ecosystems that affect diversity of organisms include • geographic location, including climate patterns, landforms, and water sources • size, from very small to very large • complexity, including number and types of plants and animals	
Science 7 Unit B: Plants for Food and Fibre (Science and Technology Emphasis)	**LEARNER OUTCOME** 6 LS 1.2 Students investigate the characteristics and components of and interactions within ecosystems.	**UNDERSTANDING** Photosynthesis is a process that supports growth and survival in a variety of ecosystems. **KNOWLEDGE** Plants carry out the process of photosynthesis, which uses light, water, and carbon dioxide to produce oxygen and food in the form of sugar (glucose). Plants and animals use food produced during photosynthesis to perform vital biological processes. Plants and animals use the oxygen that is released during photosynthesis for respiration.	**SKILLS and PROCEDURES** Explain the process of photosynthesis and its importance in an ecosystem. Design and perform a controlled experiment to demonstrate the importance of light to photosynthesis. Design and perform a controlled experiment to show that a plant is releasing oxygen. Design and perform a controlled experiment to show that a plant contains starch.

		Chlorophyll in plants collects light needed for photosynthesis. The release of oxygen and the presence of starch indicate that a plant has been photosynthesizing. Sugar produced by plants through photosynthesis is often stored as starch.	
Grade 5 **Topic E: Wetland Ecosystems** 5–10 Describe the living and nonliving components of a wetland ecosystem and the interactions within and among them. **Grade 7 Science** **Unit A: Interactions and Ecosystems (Social and Environmental Emphasis)**	**LEARNER OUTCOME** 6 LS 1.3 Students investigate the characteristics and components of and interactions within ecosystems.	**UNDERSTANDING** There are significant relationships between plants and animals within ecosystems. **KNOWLEDGE** Plants play a variety of roles in an ecosystem, such as ● photosynthesizing ● cleaning and filtering water ● reducing soil erosion ● providing food and shelter for animals Humans, like all animals, depend on plants to produce oxygen that is used for respiration. Humans also rely on plants in various other ways, such as ● food ● clothing ● paper ● building materials medicine ● fuel Plants benefit from animals, including humans, to help provide carbon dioxide, which they need to survive. Certain plants are considered sacred to First Nations and Métis, such as ● sage ● sweetgrass ● cedar ● tobacco The offering of tobacco signifies ● balance and harmony	**SKILLS and PROCEDURES** Examine ways that plants and animals rely on each other to meet their needs. Discuss plants that are considered sacred to First Nations and Métis.

		• giving back to the land • respect for the plant • a sustainable relationship	
Possible Links to the 1996 Science Curriculum	**Earth System (ES): Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.** **Guiding Question:** What relationships exist between climate and changes on Earth?		
Grade 5 **Topic D: Weather Watch** 5–8 Observe, describe and interpret weather phenomena; and relate weather to the heating and cooling of Earth's surface. 5–9 Investigate relationships between weather phenomena and human activity. **Grade 7 Science** **Unit A: Interactions and Ecosystems (Social and Environmental Emphasis)**	**LEARNER OUTCOME** 6 ES 1.1 Students investigate climate, changes in climate, and the impact of climate change on Earth.	**UNDERSTANDING** Complex interactions between humans, Earth's systems, and the Sun can impact climate and climate change. **KNOWLEDGE** Earth's systems interact with the Sun and each other to impact climate in various ways, including • clouds reflecting sunlight into space • greenhouse gases trapping heat from the Sun • ice reflecting light from the Sun Humans rely on the Sun and Earth's systems for a habitable climate. Geographical location factors that affect climate include • latitude • proximity to a large body of water • elevation • urban or rural setting Changes in climate can be caused by natural processes, including • volcanic eruptions • meteors • changes in the Sun's output • changes in orbits Changes in climate can be caused by human activities, including industrialization and pollution. The release of greenhouse gases into the atmosphere contributes to the warming of Earth. Clean energy production has the potential to reduce net greenhouse gas production. Personal actions that can help address human causes of global climate change include	**SKILLS and PROCEDURES** Describe possible impacts on climate due to interactions between the Sun and Earth's systems. Relate impacts of natural processes and human activities on climate change. Identify personal actions that may affect global climate change.

		• reducing personal consumption and waste • planting a garden or buying local produce • using clean, affordable, and reliable energy sources responsibly	
	LEARNER OUTCOME 6 ES 1.2 Students investigate climate, changes in climate, and the impact of climate change on Earth.	**UNDERSTANDING** Climate change over time can affect land, plants, humans, and other animals in a variety of ways. **KNOWLEDGE** • Climate change can affect • weather and extreme weather events • migration patterns • water resources • frequency of forest fires Climate change can impact agricultural practices, such as • crop selection • crop production • harvesting periods and yields irrigation • pest management Traditional ways of living off the land, including hunting and gathering practices of First Nations, Métis, and Inuit communities, have been impacted by climate change in various ways, such as • rising sea levels in coastal areas • changing migration patterns • access to hunting, harvesting, and fishing Theories about potential causes of the extinction of dinosaurs include worldwide climate change, a catastrophic meteoric event, or volcanic activity.	**SKILLS and PROCEDURES** Describe possible effects of climate change on land, plants, humans, and other animals. Discuss agricultural practices impacted by climate change. Research how climate change is affecting ways of living in northern, Inuit, and/or coastal communities in Canada. Discuss the effects of climate change on traditional ways of living off the land. Compare theories about dinosaur extinction.
	LEARNER OUTCOME 6 ES 1.3 Students investigate climate, changes	**UNDERSTANDING** Identifying changes in climate relies on observations	**SKILLS and PROCEDURES** Compare historical observations and measurements of

	in climate, and the impact of climate change on Earth.	and measurements from different points in time. **KNOWLEDGE** Climate change can be identified through long-term observation and measurement of weather conditions, including amount of precipitation, temperature, and number of extreme weather events. Climate change can be identified through long-term observation and measurement of environmental conditions, such as ● sea and ocean levels ● thickness and duration of sea ice ● permafrost changes ● number of forest fires Climate observations come from a variety of sources, such as ● recorded information ● oral narratives ● surface layers, including ice, from different time periods on Earth Extreme weather events that occur on Earth include ● heatwaves ● hurricanes ● monsoons Extreme weather events that occur in Canada include ● tornados ● blizzards ● torrential rain ● wildfires Technologies used to predict extreme weather events include radars, weather satellites, and computer modelling.	weather and environmental conditions to current data. Relate extreme weather events to specific locations in Canada and on Earth. Identify and discuss technologies that are used to track and predict extreme weather events.
	LEARNER OUTCOME 6 ES 1.4 NONE		

	LEARNER OUTCOME 6 ES 1.5 Students investigate climate, changes in climate, and the impact of climate change on Earth.	**UNDERSTANDING** Collaboration contributes to a broader awareness of the effects of weather on people and environments. **KNOWLEDGE** Traditional knowledge and modern technologies both provide information on long-term climate changes. Local Elders, traditional Knowledge Keepers, and scientists can collaborate and share information about local climate and climate change.	**SKILLS and PROCEDURES** Discuss how scientists, Elders, and traditional Knowledge Keepers can collaborate to develop deeper awareness of the effects of weather on people and environments. Propose ideas on how local Elders, traditional Knowledge Keepers, and scientists can collaborate to support awareness of local climate and climate change.
Possible Links to the 1996 Science Curriculum	**Space (S): Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.** **Guiding Question:** In what ways can the solar system be explored?		
Grade 6 **Sky Science** **Topic D: Evidence and Investigation** 6–8 Apply observation and inference skills to recognize and interpret patterns and to distinguish a specific pattern from a group of similar patterns. 6–9 Apply knowledge of the properties and interactions of materials to the investigation and identification of a material sample.	**LEARNER OUTCOME** 6 S 1.1 Students analyze and represent celestial bodies of the solar system.	**UNDERSTANDING** Information about Earth can be acquired through exploration of the solar system. **KNOWLEDGE** Scientific exploration of space has revealed that Earth is an interconnected part of a group of planets that orbit the Sun. The solar system is a complex group of celestial bodies that include ● the Sun (a star) ● planets and their moons dwarf planets ● asteroids ● comets ● Meteoroids Celestial bodies are natural bodies located beyond Earth's atmosphere. Celestial bodies have characteristics that vary in many ways, including	**SKILLS and PROCEDURES** Name and order the planets in the solar system and identify the location of the main asteroid belt. Classify celestial bodies of the solar system as planets, moons, dwarf planets, asteroids, comets, meteoroids, or the Sun. Represent and describe the characteristics of celestial bodies in our solar system. Examine celestial bodies that emit or reflect light. Discuss the reclassification of Pluto. Interpret physical, pictorial, or digital models of the solar system. Investigate digital or non-digital resources that contribute to understandings of the solar system

		• surface conditions; e.g., temperature, gravity, and atmosphere • composition; e.g., gas, ice, or visible rings • size • shape; e.g., round or irregular Some celestial bodies emit light and others reflect light. An asteroid belt is a collection of asteroids found within the solar system. Although Pluto was originally classified as a planet, new information led to the reclassification of Pluto as a dwarf planet. The solar system can be modelled to represent the size of the Sun and the planets and the distance between them.	
	LEARNER OUTCOME 6 S 1.2 Students analyze and represent celestial bodies of the solar system..	**UNDERSTANDING** Knowledge of the solar system continues to develop with further space exploration, discovery, and use of technologies. **KNOWLEDGE** Technologies that are used to explore the solar • system include • telescopes • satellites • probes • rovers • manned spacecraft and space stations • computer modelling Satellites are objects in space that orbit around another larger object. An orbit is the recurring path of an object around another object in space. Natural satellites are celestial bodies. Artificial satellites are constructed and put into orbit by humans. The first satellite put into orbit by Alberta (Ex-Alta 1) was designed by a group of students and faculty at	**SKILLS and PROCEDURES** Identify and compare technologies used to gather knowledge about planets and other objects in space. Compare and contrast natural satellites and artificial satellites. Discuss potential personal, societal, technological, and environmental barriers to living and working in space.

		the University of Alberta (AlbertaSat) and was successfully launched from the International Space Station in 2017. The International Space Station is a research facility that orbits Earth.	
Possible Links to the 1996 Science Curriculum	**Computer Science (CS): Problem solving and scientific inquiry are developed through the knowledgeable application of creativity, design, and computational thinking.** **Guiding Question:** In what ways are abstraction, design, and coding related?		
	LEARNER OUTCOME 6 CS 1.1 Students examine abstraction in relation to design and coding, and describe impacts of technologies.	**UNDERSTANDING** Abstraction is used in design and coding to make problems or systems easier to think about. **KNOWLEDGE** The process of abstraction includes ● determining what details to keep and what to ignore ● removing unnecessary details ● identifying important information ● generalizing patterns Information is data that is organized to be more useful. An abstraction is a simplified version of something complex. Abstractions can make daily life easier; e.g., ● simple controls on appliances ● light switches ● steering wheels ● apps Computational artifacts can be designed to address societal needs and wants; e.g., ● weather modelling ● communications ● automotive controls ● medical research ● apps ● Structures used in coding include ● sequences	**SKILLS and PROCEDURES** Apply abstraction during the design process. Identify examples of abstractions encountered in daily life. Discuss the role of design and coding in society. Use a visual block-based language to design code that includes relevant design structures.

		• conditionals (if-then-else statements) • loops Sequence structures are ordered sets of instructions within code. Conditional structures are statements that tell computers to complete different actions based on different situations.	
	LEARNER OUTCOME 6 CS 1.2 Students examine abstraction in relation to design and coding, and describe impacts of technologies.	**UNDERSTANDING** Computers, coding, and technology can be used in ways that have positive or negative impacts. **KNOWLEDGE** The use of computers, coding, and technology can have impacts that are • personal • social • environmental • economic Impacts of computers, coding, or technology may be intentional or unintentional.	**SKILLS and PROCEDURES** Discuss how computers, coding, or technology have had impacts. Predict possible impacts of computers, coding, or technology.
Possible Links to the 1996 Science Curriculum	**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 the purpose of scientific explanations?		
	LEARNER OUTCOME 6 SM 1.1 Students investigate and describe the role of explanation in science.	**UNDERSTANDING** Explanations are used in science to make sense of natural phenomena and answer scientific questions. **KNOWLEDGE** Scientific explanations make sense of natural phenomena based on an investigation. Scientific explanations must be testable (falsifiable) by an investigation that will either support or contradict the explanation. Hypotheses are proposed scientific explanations developed prior to conducting an investigation. Hypotheses are based on prior scientific knowledge and understandings.	**SKILLS and PROCEDURES** Discuss the role of scientific explanations. Develop and test a hypothesis based on a scientific explanation.

	LEARNER OUTCOME 6 SM 1.2 Students investigate and describe the role of explanation in science.	**UNDERSTANDING** Scientific explanations are constructed using reliable, objective data and evidence. **KNOWLEDGE** Evidence is used to support or contradict a hypothesis. Scientific explanations can be used to describe natural phenomena such as phases of the moon, hours of daylight, and amount of rain or snowfall (precipitation). Scientific experiments performed with objectivity and a high level of accuracy produce trustworthy evidence to support explanations.	**SKILLS and PROCEDURES** Create scientific explanations for how natural phenomena occur. Discuss observations and measurements used to create scientific explanations. Evaluate the trustworthiness of evidence and explanations from a variety of sources.
	LEARNER OUTCOME 6 SM 1.3 Students investigate and describe the role of explanation in science.	**UNDERSTANDING** Explanations of natural phenomena are communicated in various ways. **KNOWLEDGE** First Nations, Métis, and Inuit share explanations of natural phenomena through • written texts • traditional knowledge • visual forms • verbal presentations • stories and legends Scientific explanations can incorporate a variety of texts, such as • visual forms; e.g., graphs, tables, flow charts, diagrams, and models • written texts; e.g., research papers • verbal presentations; e.g., stories and discussions A scientific explanation can be communicated in different ways depending on audience. The needs of the audience influence how science is communicated, such as • vocabulary used • level of detail • method of communication	**SKILLS and PROCEDURES** Interpret multiple forms of text that offer explanations of natural phenomena. Communicate explanations using appropriate digital or non-digital technologies. Construct digital or non-digital graphs and tables using proper labels, legends, scales, and titles. Determine the appropriateness of methods of communicating explanations based on the audience.
	LEARNER OUTCOME 6 SM 1.4 Students investigate and describe the	**UNDERSTANDING** Science is a self-correcting way of knowing about the	**SKILLS and PROCEDURES** Discuss processes that can be used to validate evidence

	role of explanation in science.	world, where new evidence can change understandings and explanations. **KNOWLEDGE** Evidence and scientific explanations are subject to further investigation to determine their validity. Further investigation can involve a variety of processes, such as ● continual collection of evidence over time ● discussion and debate in the scientific community ● conducting multiple investigations over long periods of time ● using new technologies and methods that reveal new evidence New evidence has refined inaccurate scientific explanations of natural phenomena, such as ● the Sun revolves around the Earth ● different tastes are detected in different areas of the tongue ● the eyes are a source of light, allowing vision One conflicting study is not enough to cause a scientific explanation to be refined.	and explanations. Identify explanations of natural phenomena that have been refined as new evidence has been revealed.