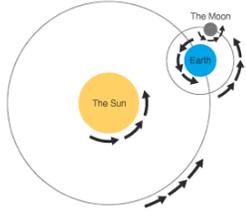
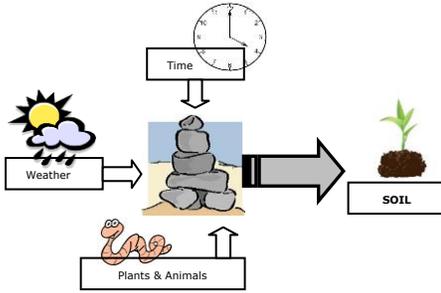
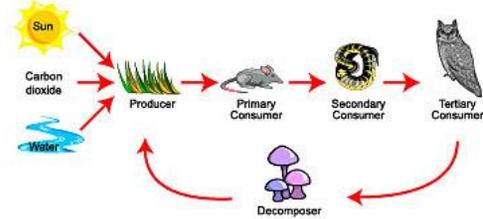


<p align="center">1st Nine Weeks August 22 – October 22</p>	<p align="center">2nd Nine Weeks October 24 – December 20</p>												
<p>Lab Safety and Scientific Method</p> <ul style="list-style-type: none"> • Demonstrate safe practices during classroom and outdoor investigations • Evaluate product advertisements to develop critical thinking skills and apply those to classroom investigations. • Connect to scientists throughout history and their contributions to modern day science. <p>Community Health/Health Behaviors</p> <ul style="list-style-type: none"> • Observe areas of the school that are shared, and discuss how to promote individual and school community health. • Demonstrate ways to keep shared surfaces clean such as proper hand washing. • Investigate how germs are spread <p>Properties of Matter</p> <ul style="list-style-type: none"> • Measure, test and describe properties of matter using scientific terms such as mass (how much matter in is an object), magnetism, and the ability to sink or float. <p>States of Matter</p> <ul style="list-style-type: none"> • Distinguish between the characteristics of solids, liquids and gasses, and classify samples of matter <table border="1" data-bbox="184 760 978 870"> <thead> <tr> <th>SOLIDS</th> <th>LIQUIDS</th> <th>GASSES</th> </tr> </thead> <tbody> <tr> <td>Definite shape</td> <td>No definite shape</td> <td>No definite shape</td> </tr> <tr> <td>Definite volume</td> <td>Definite volume</td> <td>No definite volume</td> </tr> <tr> <td>Ex: rock, pencil</td> <td>Ex: water, milk</td> <td>Ex: oxygen, helium</td> </tr> </tbody> </table> <p>Changes in States of Matter</p> <ul style="list-style-type: none"> • Predict, observe and record changes in the state of matter caused by heating or cooling • Explore thermal (heat) energy and its applications to everyday life such as in cooking or in the formation and melting of ice (conditions that would speed up or slow down freezing and melting) <p>Mixtures</p> <ul style="list-style-type: none"> • Explore mixtures such as gravel with sand, understanding that the components of a mixture can be separated and retain their original form. <div data-bbox="590 1057 1010 1330" data-label="Image"> </div>	SOLIDS	LIQUIDS	GASSES	Definite shape	No definite shape	No definite shape	Definite volume	Definite volume	No definite volume	Ex: rock, pencil	Ex: water, milk	Ex: oxygen, helium	<p>Forms of Energy</p> <ul style="list-style-type: none"> • Explore different forms of energy, including thermal, mechanical, sound and light in everyday life. • Investigate how sounds travel through solids such as a paper cup telephone or slinky, and compare/contrast the volume and pitch of different sounds. • Investigate properties of light energy. For example, light travels in a straight line, and has degrees of transparency. <div data-bbox="1108 505 1629 643" data-label="Image"> </div> <div data-bbox="1663 256 1955 773" data-label="Image"> </div> <p>Force and Motion</p> <ul style="list-style-type: none"> • Demonstrate, observe and measure push and pull forces by describing the change in direction and position when a push or pull is applied. Also explain that the amount of force applied will change the resulting motion. <div data-bbox="1331 841 1703 980" data-label="Diagram"> </div> <ul style="list-style-type: none"> • Investigate gravity and realize that gravity is a force that pulls objects toward the Earth. • Discover which objects are attracted to magnets and which are not, and perform tests to show that some magnets are stronger than others.
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<p align="center">3rd Nine Weeks January 5 – March 10</p>	<p align="center">4th Nine Weeks March 20 – May 25</p>												
<p>Outer Space</p> <ul style="list-style-type: none"> Construct models that demonstrate the orbit, size and distance of the Earth, Sun and Moon. Identify the order of the planets in relation to the Sun. Describe the characteristics of the sun such as size, temperature, composition, layers, features, position and importance.  <p>Weather and the Water Cycle</p> <ul style="list-style-type: none"> Describe and illustrate how the Sun's light and heat energy causes the water cycle to occur. Measure, gather and compare weather data over time such as temperature, wind direction, wind speed and precipitation. <p>Landforms and Rapid Changes to the Earth's Surface</p> <ul style="list-style-type: none"> Identify and compare different landforms such as mountains, hills, valleys and plains. Investigate rapid changes in the Earth's surface such as volcanic eruptions, earthquakes and landslides. <p>Earth's Resources: Soil</p> <ul style="list-style-type: none"> Explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains. Observe and compare soil samples to discover that soil is made from small bits of rock and once-living things.  <p>Earth's Resources: Natural Resources and Conservation</p> <ul style="list-style-type: none"> Explore the characteristics of natural resources that make them useful in products and materials such as clothing and furniture, by identifying the source of objects found within the classroom and school. Identify ways to conserve the Earth's natural resources in our daily lives. <table border="1" data-bbox="184 1323 982 1404"> <tr> <td>Renewable Resource</td> <td>Earth materials that are restored by nature</td> </tr> <tr> <td>Non-Renewable Resource</td> <td>Earth materials that take a long time to be restored or can never be restored</td> </tr> </table>	Renewable Resource	Earth materials that are restored by nature	Non-Renewable Resource	Earth materials that take a long time to be restored or can never be restored	<p>Life Cycles</p> <ul style="list-style-type: none"> Investigate the stages of animal and plant life cycles such as frogs, ladybugs and tomatoes. Compare and contrast the life cycle of different organisms. List and explain the stages of human growth and development <p>Inherited and Learned Traits of Plants and Animals</p> <ul style="list-style-type: none"> Explore and identify inherited traits from the parent such as number of limbs on an animal or petal color on a flower. Explore and identify learned behavioral traits such as animals using tools to get food in certain environments Compare and classify traits as being learned or inherited. <table border="1" data-bbox="1087 617 1890 755"> <thead> <tr> <th>EXAMPLE</th> <th>LEARNED OR INHERITED</th> </tr> </thead> <tbody> <tr> <td>Physical features such as hair color, body shape, skin color</td> <td>Inherited trait</td> </tr> <tr> <td>Migration, breathing, eating</td> <td>Inherited behavior</td> </tr> <tr> <td>Tying shoes, reading, driving</td> <td>Learned behavior</td> </tr> </tbody> </table> <p>Plant and Animal Adaptations</p> <ul style="list-style-type: none"> Explore specific body parts and their role in the plant or animal's survival in their specific environment. For example, how seeds are adapted to travel from the parent, and animal camouflage. <p>Ecosystems & Food Chains</p> <ul style="list-style-type: none"> Identify the basic needs of all organisms as food, water and shelter Observe and describe the physical characteristics of environments and how they support or limit population growth and communities within an ecosystem. Simulate patterns of population growth due to the interaction of a group of organisms and their environment. Identify and describe how energy flows in a food chain from the Sun to the producer (makes its own food) to the consumer (cannot make its own food and needs to eat to survive). Describe and predict how removing a plant or animal from a food chain will affect the entire ecosystem.  <p>Environmental Changes</p> <ul style="list-style-type: none"> Describe ways in which ecosystems are in a constant state of large and small scale changes because of naturally occurring events. Identify and predict the likely outcomes of a major environmental event such as a drought or flood on the survival of plants and animals within that ecosystem. Identify common health problems that result from unhealthy environments such as skin cancer, poisoning, and respiratory illness. 	EXAMPLE	LEARNED OR INHERITED	Physical features such as hair color, body shape, skin color	Inherited trait	Migration, breathing, eating	Inherited behavior	Tying shoes, reading, driving	Learned behavior
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PROCESS STANDARDS

Scientific Investigations and Reasoning Skill TEKS are taught throughout the school year during all content units.

Safe Practices

- demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat
- make informed choices in the use and conservation of natural resources by recycling or reusing materials such as paper, aluminum cans, and plastics

Scientific Inquiry

- plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world
- collect data by observing and measuring using the metric system and recognize differences between observed and measured data
- construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data
- analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations
- demonstrate that repeated investigations may increase the reliability of results
- communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion

Decision Making

- in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student
- draw inferences and evaluate accuracy of product claims found in advertisements and labels such as for toys and food
- represent the natural world using models such as volcanoes or Sun, Earth, and Moon system and identify their limitations, including size, properties, and materials
- connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists

Tools and Methods

- collect, record, and analyze information using tools, including microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks, compasses, magnets, collecting nets, notebooks, sound recorders, and Sun, Earth, and Moon system models; timing devices, including clocks and stopwatches; and materials to support observation of habitats of organisms such as terrariums and aquariums
- use safety equipment as appropriate, including safety goggles and gloves