

	K (SK) DATES: 2/8 -3/3; 3/7 - 3/31	1st (S1) DATES: 1/26 – 3/3; 3/7 – 3/31	2nd (S2) DATES: 3/1 -3/31 (E1); (E2-E3) 10/1-11/16
Earth Science (E)	<p>E1. Students will describe time patterns (day/night) and objects in the day and night sky</p> <ol style="list-style-type: none"> Changes in day to night and night to day. Classify objects according to those seen in the day sky and those seen in the night sky. Recognize that the Sun supplies heat and light to Earth. <p>E2. Students will describe the physical attributes of rocks and soils.</p> <ol style="list-style-type: none"> Use senses to observe and group rocks by physical attributes (size, color, texture) Use senses to observe soils by physical attributes (odor, texture, color, grain size) Recognize Earth Materials (soil, rock, water, air, etc.) 	<p>E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.</p> <ol style="list-style-type: none"> Identify different types of weather and the characteristics of each type. Investigate weather by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal or on a calendar seasonally. Correlate weather data (temperature, precipitation, sky conditions, and weather events) to seasonal changes. <p>E2. Students will observe and record changes in water as it relates to weather.</p> <ol style="list-style-type: none"> Recognize changes in water when it freezes (ice) and when it melts (water). Identify forms of precipitation such as rain, snow, sleet, and hailstones as either solid (ice) or liquid (water). Determine that the weight of water before freezing, after freezing, and after melting stays the same. Determine that water in an open container disappears into the air over time, but water in a closed container does not. 	<p>E1. Students will understand that stars have different sizes, brightness, and patterns.</p> <ol style="list-style-type: none"> Describe the physical attributes of stars— size, brightness, and patterns. <p>E2. Students will investigate the position of sun and moon to show patterns throughout the year.</p> <ol style="list-style-type: none"> Investigate the position of the sun in relation to a fixed object on earth at various times of the day. Determine how the shadows change through the day by making a shadow stick or using a sundial. Relate the length of the day and night to the change in seasons (for example: Days are longer than the night in the summer.). Use observations and charts to record the shape of the moon for a period of time. <p>E3. Students will observe and record changes in their surroundings and infer the causes of the changes.</p> <ol style="list-style-type: none"> Recognize effects that occur in a specific area caused by weather, plants, animals, and/or people.

<p>Physical Science: Physics</p>	<p>P2. Students will investigate different types of motion.</p> <ol style="list-style-type: none"> Sort objects into categories according to their motion. (straight, zigzag, round and round, back and forth, fast and slow, and motionless) Push, pull, and roll common objects and describe their motions. <p>P3. Students will observe and communicate effects of gravity on objects.</p> <ol style="list-style-type: none"> Recognize that some things, such as airplanes and birds, are in the sky, but return to earth. Recognize that the sun, moon, and stars are in the sky, but don't come down. Explain why a book does not fall down if it is placed on a table, but will fall down if it is dropped. <p>DATES: 12/7 – 12/17; 1/6 – 2/4</p>	<p>P1. Students will investigate light and sound.</p> <ol style="list-style-type: none"> Recognize sources of light. Explain how shadows are made. Investigate how vibrations produce sound. Differentiate between various sounds in terms of (pitch) high or low and (volume) loud or soft. Identify emergency sounds and sounds that help us stay safe. <p>P2. Students will demonstrate effects of magnets on other magnets and other objects.</p> <ol style="list-style-type: none"> Demonstrate how magnets attract and repel. Identify common objects that are attracted to a magnet. Identify objects and materials (air, water, wood, paper, your hand, etc.) that do not block magnetic force. <p>DATES: 10/1 – 11/2 (Magnets) 11/4 – 12/11 (Sound) 12/15 – 12/17; 1/6-1/22(Light)</p>	<p>P2. Students will identify sources of energy and how the energy is used.</p> <ol style="list-style-type: none"> Identify sources of light energy, heat energy, and energy of motion. Describe how light, heat, and motion energy are used. <p>P3. Students will demonstrate changes in speed and direction using pushes and pulls.</p> <ol style="list-style-type: none"> Demonstrate how pushing and pulling an object affects the motion of the object. Demonstrate the effects of changes of speed on an object. <p>DATES: 2/1 -2/26</p>
<p>Physical Science: Chemistry</p>	<p>P1. Students will describe objects in terms of the materials they are made of and their physical properties.</p> <ol style="list-style-type: none"> Compare and sort materials of different composition (common materials include clay, cloth, paper, plastic, etc.). Use senses to classify common materials, such as buttons or swatches of cloth, according to their physical attributes (color, size, shape, weight, texture, buoyancy, flexibility). <p>DATES: 11/9 – 12/4</p>	<p>NONE</p>	<p>P1. Students will investigate the properties of matter and changes that occur in objects.</p> <ol style="list-style-type: none"> Identify the three common states of matter as solid, liquid, or gas. Investigate changes in objects by tearing, dissolving, melting, squeezing, etc. <p>P2. Students will identify sources of energy and how the energy is used.</p> <ol style="list-style-type: none"> Identify sources of light energy, heat energy, and energy of motion. Describe how light, heat, and motion energy are used. <p>DATES: 11/18 – 12/15 (Matter) 1/6 – 1/27 (Energy)</p>

Life Science

Kindergarten

DATES:

Sorting

8/17 – 9/4

Plants

9/8 - 9/30

Animals

10/2 – 11/5

L1. Students will sort living organisms and non-living materials into groups by observable physical attributes.

- a. Recognize the difference between living organisms and nonliving materials.
- b. Group animals according to their observable features such as appearance, size, motion, where it lives, etc. (Example: A green frog has four legs and hops. A rabbit also hops.)
- c. Group plants according to their observable features such as appearance, size, etc.

L2. Students will compare the similarities and differences in groups of organisms.

- a. Explain the similarities and differences in animals. (color, size, appearance, etc.)
- b. Explain the similarities and differences in plants. (color, size, appearance, etc.)
- c. Recognize the similarities and differences between a parent and a baby.
- d. Match pictures of animal parents and their offspring explaining your reasoning. (Example: dog/puppy; cat/kitten; cow/calf; duck/ducklings, etc.)
- e. Recognize that you are similar and different from other students. (senses, appearance)

L1. Students will investigate the characteristics and basic needs of plants and animals.

- a. Identify the basic needs of a plant.
 1. Air
 2. Water
 3. Light
 4. Nutrients
- b. Identify the basic needs of an animal.
 1. Air
 2. Water
 3. Food
 4. Shelter
- c. Identify the parts of a plant—root, stem, leaf, and flower.
- d. Compare and describe various animals—appearance, motion, growth, basic needs.

DATES: 8/17 – 9/29

L1. Students will investigate the life cycles of different living organisms.

- a. Determine the sequence of the life cycle of common animals in your area: a mammal such as a cat or dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.
- b. Relate seasonal changes to observations of how a tree changes throughout a school year.
- c. Investigate the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time.
- d. Identify fungi (mushroom) as living organisms.

DATES: 8/17 – 9/29