Students will be able to: *SKILLS IN INQUIRY-BASED LEARNING*

- Ask questions and make predictions that can be tested.
- Select and use appropriate tools and technology (*ruler, meter sticks, thermometers, hand lenses, and balances*) to gather data and extend observations.
- Keep accurate records while conducting simple investigations or experiments.
- Conduct multiple trials to test a prediction. Compare the results of an investigation or experiment with the prediction.
- Recognize simple patterns in data and use data to create a reasonable explanation for the results of an investigation or experiment.
- Record data and communicate findings to others using graphs, charts, maps, models, and oral and written reports.

Students will be able to: *EARTH AND SPACE SCIENCE*

- Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time.
- Distinguish among the various forms of precipitation (*rain, snow, sleet, and hail*), making connections to the weather in a particular place and time.
- Describe how global patterns such as the jet stream and water currents influenced local weather in measurable terms such as temperature, wind directions and speed, and precipitation.
- Differentiate between weather and climate.
- Describe how water on Earth cycles in different forms and in different locations, including underground and in the atmosphere.
- Give examples of how the cycling of water, both in and out of the atmosphere, has an effect on climate.

Students will be able to: *LIFE SCIENCE*

- Give examples of how inherited characteristics may change over time as adaptations enable organisms to survive. (*shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color*)
- Give examples of how changes in the environment (*drought, cold*) have caused some plants and animals to die or move to new locations. (*migration*)
- Describe how organisms meet some of their needs in an environment by using behaviors (*patterns of activities*) in response to information (*stimuli*) received from the environment. Recognize that some animal behaviors are instinctive (*turtles burying their eggs*), and others are learned. (*humans building fires for warmth, chimpanzees learning how to use tools*)
- Recognize that many plants and animals can survive harsh environments because of seasonal behaviors. (*in winter, some trees shed leaves, some animals hibernate, and other animals migrate*)
- Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.
- Describe how energy derived from the Sun is used by plants to produce sugars (*photosynthesis*) and is transferred within a food chain from producers, to consumers, to decomposers.

Students will be able to: *PHYSICAL SCIENCES*

- Identify the basic forms of energy (*light, sound, heat, electrical, and magnetic*). Recognize that energy is the ability to cause motion or create change.
- Recognize that electricity in circuits requires a complete loop through which an electrical current can pass, and that electricity can produce light, heat, and sound.
- Identify and classify objects and materials that conduct electricity (*sound and heat*) and objects and materials that are insulators of electricity. (*sound and heat*)
- Explain how electromagnets can be made, and give examples of how they can be used.
- Recognize that magnets have poles that repel and attract each other.
- Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.

Students will be able to: *TECHNOLOGY/ENGINEERING*

- Identify materials used to accomplish a design task based on a specific property. (*weight, strength, hardness, and flexibility*)
- Identify a problem that reflects the need for shelter, storage, or convenience.
- Describe different ways in which a problem can be represented. (*sketches, diagrams, graphic organizers, and lists*)
- Compare natural systems with mechanical systems that are designed to serve similar purposes. (*a bird's wings as compared to an airplane's wing*)