

First Grade

Physical Sciences

1. Materials come in different forms (states), including solids, liquids, and gases. As a basis for understanding this concept:
 - a. *Students know solids, liquids, and gases have different properties.*
 - b. *Students know the properties of substances can change when the substances are mixed, cooled, or heated.*

Life Sciences

2. Plants and animals meet their needs in different ways. As a basis for understanding this concept:
 - a. *Students know* different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.
 - b. *Students know* both plants and animals need water, animals need food, and plants need light.
 - c. *Students know* animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.
 - d. *Students know* how to infer what animals eat from the shapes of their teeth (e.g., sharp teeth: eats meat; flat teeth: eats plants).
 - e. *Students know* roots are associated with the intake of water and soil nutrients and green leaves are associated with making food from sunlight.

Earth Sciences

3. Weather can be observed, measured, and described. As a basis for understanding this concept:
 - a. *Students know* how to use simple tools (e.g., thermometer, wind vane) to measure weather conditions and record changes from day to day and across the seasons.
 - b. *Students know* that the weather changes from day to day but that trends in temperature or of rain (or snow) tend to be predictable during a season.
 - c. *Students know* the sun warms the land, air, and water.

Investigation and Experimentation

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
 - a. Draw pictures that portray some features of the thing being described.
 - b. Record observations and data with pictures, numbers, or written statements.
 - c. Record observations on a bar graph.
 - d. Describe the relative position of objects by using two references (e.g., above and next to, below and left of).
 - e. Make new observations when discrepancies exist between two descriptions of the same object or phenomenon.