



Kindergarten

Physical Sciences

1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:
 - a. *Students know* objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).
 - b. *Students know* water can be a liquid or a solid and can be made to change back and forth from one form to the other.
 - c. *Students know* water left in an open container evaporates (goes into the air) but water in a closed container does not.

Life Sciences

2. Different types of plants and animals inhabit the earth. As a basis for understanding this concept:
 - a. *Students know* how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).
 - b. *Students know* stories sometimes give plants and animals attributes they do not really have.
 - c. *Students know* how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs).

Earth Sciences

3. Earth is composed of land, air, and water. As a basis for understanding this concept:
 - a. *Students know* characteristics of mountains, rivers, oceans, valleys, deserts, and local landforms.
 - b. *Students know* changes in weather occur from day to day and across seasons, affecting Earth and its inhabitants.
 - c. *Students know* how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.

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. Observe common objects by using the five senses.
 - b. Describe the properties of common objects.
 - c. Describe the relative position of objects by using one reference (e.g., above or below).
 - d. Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight).
 - e. Communicate observations orally and through drawings.



Grade One

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.