

SCIENCE CONTENT STANDARDS KINDERGARTEN

Kindergarten science content provides opportunities for kindergarten students to explore the world around them. They begin their study of science by observing and noting the similarities, differences and component parts of materials, plants and animals and the earth and observing processes and changes over time. Students learn how to classify, compare, sort, and identify common objects. In kindergarten science, students expand their skills for descriptive language by learning to observe, measure, and predict the properties of materials. Activities related to freezing, melting and evaporation could be used to stimulate classroom discussions, and to develop vocabulary and listening comprehension. Similarly, the study of plants and animals, landforms, and weather allows students to recount stories, and speak of familiar experiences and interests. At the same time they are developing vocabulary, and learning to use words to communicate their observations and ideas. Students are encouraged to draw and discuss pictures that represent their observations and the simple predictions they make based on what they observe. By observing, counting and naming objects and/or their properties students are applying skills they have developed in mathematics at this grade level.

Physical Sciences

- **Properties of matter can be observed, measured and predicted.** As a basis for understanding this concept, students know:
 - objects can be described in terms of the materials they are made of (clay, cloth, paper, etc.) and their physical properties (color, size, shape, weight, texture, flexibility, attraction to magnets, floating and sinking, etc.).
 - water can be a liquid or a solid and can be made to change back and forth from one form to the other.

Life Sciences

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

Earth Sciences

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

Science Process Skills (Investigation and Experimentation)

- Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept, and to address the content in the other three strands, students should develop their own questions and perform investigations.

Students will:

- **observe common objects using the five senses.**
- **describe the properties of common objects**
- describe the relative position of objects using one reference (e.g., above or below).
- **compare and sort common objects based on one physical attribute (including color, shape, texture, size, weight).**
- communicate observations orally and in drawings.