

FIRST GRADE SCIENCE

THEME: SURVIVAL

Goal

Science education in first grade builds upon the foundation that began in kindergarten. First graders learn that all living things have the same basic needs. Students should be given as many opportunities as possible to experience and interact with living things within the environment. Study of the basic needs of all living things should begin with things that can be experienced immediately, such as plants and animals in backyards, gardens, and playgrounds.

In first grade, students can be expected to conduct simple experiments in which they make predictions and test them. Students can draw conclusions from experiments and practice recording and explaining them. First grade students should gain practice in working in collaborative groups and in using basic science instruments.

Science Processes and Inquiry

1. The student will engage in investigations that lead to the discovery of science concepts.

- a. Draw pictures that portray some features of the object being described.
- b. Record observations and data with pictures, numbers, and/or written statements.
- c. Record observations on a bar graph.
- d. Practice safety procedures in all science activities.

Physical Science

1. Matter – The student will observe that materials come in different forms (states) including solids, liquids, and gases.

- a. Identify the many ways in which objects can be grouped or classified.
- b. Classify solids according to their properties:
 - *Color
 - *Texture
 - *Shape (ability to roll or stack)
 - *Weight
- c. Determine the properties of liquids:
 - *Color
 - *Buoyancy (floats or sinks)
- d. Observe changes in the state of matter due to the mixing, heating, cooling, tearing, sifting, sanding and pounding of common materials.
- e. Explore how different materials can be made by physically combining substances.

Life Science

1. Plants/Animals – The student will evaluate the different ways in which plants and animals meet their needs.

- a. Determine the needs of plants:
 - *Air
 - *Water
 - *Nutrients
 - *Light
- b. Determine the needs of animals:
 - *Air
 - *Water
 - *Food
 - *Shelter
- c. Determine that different plants and animals inhabit different kinds of environments (habitats).
- d. Observe the external features that help plants and animals thrive in different types of places (adaptations).
- e. Describe how seasonal changes affect plants, animals, and their surroundings (e.g. migration, hibernation, camouflage, adaptation, dormancy).
- f. Observe the different ways animals move from place to place, and how plants germinate and disseminate.

Earth Science

1. Earth's Surface – The student will observe that the Earth is composed of land, air, and water.

- a. Identify characteristics of mountains, rivers, oceans, valleys, deserts, and local land forms.
- b. Identify resources from the Earth that are used in everyday life.
- c. Explore how many resources can be conserved.

Experiential Location Suggestions:

Playground

Back Yards

Gardens

Other Theme Suggestions:

Nature

Necessity

Living and Non-Living Objects

Beneath the Ground