

Kindergarten

Science Content Standards.

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).

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.

Grade One

Science Content Standards

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.

Grade Two

Science Content Standards.

Life Sciences

- a. Students know light, gravity, touch, or environmental stress can affect the germination, growth, and development of plants.
- b. Students know flowers and fruits are associated with reproduction in plants.

Grade Three

Science Content Standards.

Life Sciences

- 3. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:
 - a. Students know plants and animals have structures that serve different functions in growth, survival, and reproduction.
 - b. Students know examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.
 - c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.
 - d. Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations.
 - e. Students know that some kinds of organisms that once lived on Earth have completely disappeared and that some of those resembled others that are alive today.

Grade Four

Science Content Standards

Life Sciences

2. All organisms need energy and matter to live and grow. As a basis for understanding this concept:
 - a. Students know plants are the primary source of matter and energy entering most food chains.
 - b. Students know producers and consumers (herbivores, carnivores, omnivores, and decomposers) are related in food chains and food webs and may compete with each other for resources in an ecosystem.
 - c. Students know decomposers, including many fungi, insects, and microorganisms, recycle matter from dead plants and animals.
3. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:
 - a. Students know ecosystems can be characterized by their living and nonliving components.
 - b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.
 - c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.

Grade Six

Science Content Standards.

Focus on Earth Science

5. Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:
 - a. Students know energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis and then from organism to organism through food webs.
 - b. Students know matter is transferred over time from one organism to others in the food web and between organisms and the physical environment.

- c. Students know populations of organisms can be categorized by the functions they serve in an ecosystem.
- d. Students know different kinds of organisms may play similar ecological roles in similar biomes.
- e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.