



South Carolina Science Standards: The Many Uses of the Forest

Third Grade

1. Science and Engineering Practices

a. 3.S.1A.8

- i. Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions, (2) understand phenomena, (3) develop models, or (4) support explanations, claims, or designs. Communicate observations and explanations using the conventions and expectations of oral and written language.

2. Earth Science: Earth's Materials and Processes

a. 3.E.4A.3

- i. Obtain and communicate information to exemplify how humans obtain, use, and protect renewable and nonrenewable Earth resources.

b. 3.E.4B.3

- i. Obtain and communicate information to explain how natural events (such as fires, landslides, earthquakes, volcanic eruptions, or floods) and human activities (such as farming, mining, or building) impact the environment.

- c. 3.E.4B.4
 - i. Define problems caused by a natural event or human activity and design devices or solutions to reduce the impact on the environment.
- 3. Life Science: Environments and Habitats
 - a. 3.L.5A.1
 - i. Analyze and interpret data about the characteristics of environments (including salt and freshwater, deserts, grasslands, forests, rain forests, and polar lands) to describe how the environment supports a variety of organisms.
 - b. 3.L.5B.1
 - i. Obtain and communicate information to explain how changes in habitats (such as those that occur naturally or those caused by organisms) can be beneficial or harmful to the organisms that live there.
 - c. 3.L.5B.2
 - i. Develop and use models to explain how changes in a habitat cause plants and animals to respond in different ways (such as hibernating, migrating, responding to light, death, or extinction)

Fourth Grade

- 1. Science and Engineering Practices
 - a. 4.S.1A.8
 - i. Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions, (2) understand phenomena, (3) develop models, or (4) support explanations, claims, or designs. Communicate observations and explanations using the conventions and expectations of oral and written language.
- 2. Life Science: Characteristics and Growth of Organisms
 - a. 4.L.5A.2

- i. Analyze and interpret data from observations and measurements to compare the stages of development of different seed plants.
- b. 4.L.5A.4
 - i. Construct scientific arguments to support claims that some characteristics of organisms are inherited from parents and some are influenced by the environment.

Fifth Grade

1. Science and Engineering Practices

a. 5.S.1A.8

- i. Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions, (2) understand phenomena, (3) develop models, or (4) support explanations, claims, or designs. Communicate observations and explanations using the conventions and expectations of oral and written language.

2. Earth Science: Changes in Landforms and Oceans

a. 5.E.3B.3

- i. Construct scientific arguments to support claims that human activities (such as conservation efforts or pollution) affect the land and oceans of Earth.

b. 5.E.3B.4

- i. Define problems caused by natural processes or human activities and test possible solutions to reduce the impact on landforms and the ocean shore zone.

3. Life Science: Interdependent Relationships in Ecosystems

a. 5.L.4A.1

- i. Analyze and interpret data to summarize the abiotic factors (including quantity of light and water, range of temperature, salinity, and soil composition) of different terrestrial ecosystems and aquatic ecosystems.

- b. 5.L.4A.2
 - i. Obtain and communicate information to describe and compare the biotic factors (including individual organisms, populations, and communities) of different terrestrial and aquatic ecosystems.
- c. 5.L.4B.4
 - i. Construct scientific arguments to explain how limiting factors (including food, water, space, and shelter) or a newly introduced organism can affect an ecosystem.

Sixth Grade

1. Science and Engineering Practices

- a. 6.S.1A.8
 - i. Obtain and evaluate scientific information to (1) answer questions, (2) explain or describe phenomena, (3) develop models, (4) evaluate hypotheses, explanations, claims, or designs or (5) identify and/or fill gaps in knowledge. Communicate using the conventions and expectations of scientific writing or oral presentations by (1) evaluating grade-appropriate primary or secondary scientific literature, or (2) reporting the results of student experimental investigations.

2. Life Science: Diversity of Life – Protists, Fungi and Plants

- a. 6.L.5B.4
 - i. Plan and conduct controlled scientific investigations to determine how changes in environmental factors (such as air, water, light, minerals, or space) affect the growth and development of a flowering plant.
- b. 6.L.5B.5
 - i. Analyze and interpret data to describe how plants respond to external stimuli (including temperature, light, touch, water, and gravity).

Seventh Grade

1. Science and Engineering Practices

a. 7.S.1A.8

- i. Obtain and evaluate scientific information to (1) answer questions, (2) explain or describe phenomena, (3) develop models, (4) evaluate hypotheses, explanations, claims, or designs or (5) identify and/or fill gaps in knowledge. Communicate using the conventions and expectations of scientific writing or oral presentations by (1) evaluating grade-appropriate primary or secondary scientific literature, or (2) reporting the results of student experimental investigations.