



# South Carolina Science Standards: Scarecrow and the Plow

## 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.1

- i. Analyze and interpret data from observations and measurements to describe and compare different Earth materials (including rocks, minerals, and soil) and classify each type of material based on its distinct physical properties.

#### b. 3.E.4A.3

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

#### c. 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.
- 3. Life Science: Environments and Habitats
  - a. 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.

## 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 and expectations of oral and written language.
- 2. Life Science: Characteristics and Growth of Organisms
  - a. 4.L.5B.2
    - i. Construct explanations for how structural adaptations (such as the types of roots, stems, or leaves; color of flowers, or seed dispersal) allow plants to survive and reproduce.

## 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 hypotheses, 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.1
    - i. Analyze and interpret data to describe and predict how natural processes (such as weathering, erosion, deposition, earthquakes, tsunamis, hurricanes, or storms) affect Earth's surface.
- 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.1
    - i. Analyze and interpret data to explain how organisms obtain their energy and classify organisms as producers, consumers (including herbivore, carnivore, and omnivore), or decomposers (such as fungi and bacteria).

## 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.1
    - i. Construct explanations of how the internal structures of vascular and nonvascular plants transport food and water.
  - b. 6.L.5B.2
    - i. Analyze and interpret data to explain how the processes of photosynthesis, respiration, and transpiration work together to meet the needs of plants.
  - c. 6.L.5B.3
    - i. Develop and use models to compare structural adaptations and processes that flowering plants use for defense, survival and reproduction.
  - d. 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.
  - e. 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.
- 2. Ecology: Interactions of Living Systems and the Environment
  - a. 7.EC.5A.2
    - i. Construct explanations of how soil quality (including composition, texture, particle size, permeability, and pH) affects the characteristics of an ecosystem using evidence from soil profiles.
  - b. 7.EC.5A.3
    - i. Analyze and interpret data to predict changes in the number of organisms within a population when certain changes occur to the physical environment (such as changes due to natural hazards or limiting factors).