



# web of water

Web of Water Webisode 2: In the Piedmont

South Carolina Science Standards Grades 2-12

These standards correlate to Webisode 2 of the Web of Water Series at <http://www.webofwater.org>.

## GRADE 2

### Animals

**Standard 2-2:** The student will demonstrate an understanding of the needs and characteristics of animals as they interact in their own distinct environments. (Life Science)

**Indicators**

2-2.4 Summarize the interdependence between animals and plants as sources of food and shelter.

## GRADE 3

### Habitats and Adaptations

**Standard 3-2:** The student will demonstrate an understanding of the structures, characteristics, and adaptations of organisms that allow them to function and survive within their habitats. (Life Science)

**Indicators**

3-2.5 Summarize the organization of simple food chains (including the roles of producers, consumers, and decomposers).

## GRADE 3



# Earth's Materials and Changes

**Standard 3-3:** The student will demonstrate an understanding of Earth's composition and the changes that occur to the features of Earth's surface. (Earth Science)

## Indicators

- 3-3.3 Illustrate Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).
- 3-3.4 Illustrate Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.
- 3-3.5 Exemplify Earth materials that are used as fuel, as a resource for building materials, and as a medium for growing plants.

## GRADE 4

### Organisms and Their Environments

**Standard 4-2:** The student will demonstrate an understanding of the characteristics and patterns of behavior that allow organisms to survive in their own distinct environments. (Life Science)

## Indicators

- 4-2.2 Explain how humans and other animals use their senses and sensory organs to detect signals from the environment and how their behaviors are influenced by these signals.
- 4-2.6 Explain how organisms cause changes in their environment.

## GRADE 5

### Ecosystems: Terrestrial and Aquatic

**Standard 5-2:** The student will demonstrate an understanding of relationships among biotic and abiotic factors within terrestrial and aquatic ecosystems. (Life Science)

## Indicators

- 5-2.3 Compare the characteristics of different ecosystems (including estuaries/salt marshes, oceans, lakes and ponds, forests, and grasslands).
- 5-2.4 Identify the roles of organisms as they interact and depend on one another through food chains and food webs in an ecosystem, considering producers and consumers (herbivores, carnivores, and omnivores), decomposers (microorganisms, termites, worms, and fungi), predators and prey, and parasites and hosts.

## GRADE 5



# Landforms and Oceans

**Standard 5-3:** The student will demonstrate an understanding of features, processes, and changes in Earth's land and oceans. (Earth Science)

## Indicators

5-3.6 Explain how human activity (including conservation efforts and pollution) has affected the land and the oceans of Earth.

## GRADE 7

### Cells and Heredity

**Standard 7-2:** The student will demonstrate an understanding of the structure and function of cells, cellular reproduction, and heredity. (Life Science)

## Indicators

7-2.4 Explain how cellular processes (including respiration, photosynthesis in plants, mitosis, and waste elimination) are essential to the survival of the organism.

## GRADE 7

### Ecology: The Biotic and Abiotic Environment

**Standard 7-4:** The student will demonstrate an understanding of how organisms interact with and respond to the biotic and abiotic components of their environment. (Earth Science, Life Science)

## Indicators

7-4.2 Illustrate energy flow in food chains, food webs, and energy pyramids

7-4.5 Summarize how the location and movement of water on Earth's surface through groundwater zones and surface-water drainage basins, called watersheds, are important to ecosystems and to human activities.

## 9-12

## BIOLOGY

**Standard B-6:** The student will demonstrate an understanding of the interrelationships among organisms and the biotic and abiotic components of their environments.



## Indicators

- B-6.1 Explain how the interrelationships among organisms (including predation, competition, parasitism, mutualism, and commensalism) generate stability within ecosystems
- B-6.5 Explain how ecosystems maintain themselves through naturally occurring processes (including maintaining the quality of the atmosphere, generating soils, controlling the hydrologic cycle, disposing of wastes, and recycling nutrients).

9-12

## EARTH SCIENCE

### Earth's Hydrosphere

**Standard ES-5:** The student will demonstrate an understanding of Earth's freshwater and ocean systems.

## Indicators

- ES-5.1 Summarize the location, movement, and energy transfers involved in the movement of water on Earth's surface (including lakes, surface-water drainage basins [watersheds], freshwater wetlands, and groundwater zones).
- ES-5.2 Illustrate the characteristics of the succession of river systems.

Add:

recycling

