



web of water

Web of Water Webisode 5: In the Coastal Zone Discussion Questions and Answers

South Carolina Science Standards Grades 2-7

These standards correlate to discussion questions and answers for Webisode 5 of the Web of Water Series at <http://www.webofwater.org>.

QUESTIONS:

1. What types of technology did African-Americans bring to the colony of South Carolina that helped our agricultural development? Why were they important in our history?
2. What fort sits at the convergence of the Cooper and Ashley rivers? Why is it important in American history?
3. The waters around Magnolia Gardens are dark brown in color? What causes this darker coloration?
4. What Caribbean island was influential in the early development of the colony of Charleston and what are some of the connections between Charleston and the islands?
5. What is an estuary? What types of animals live there?

ANSWERS:

1. African slaves were largely responsible for teaching South Carolinians how to cultivate rice. They showed colonists how to build the dikes, mortar and pestle systems, and how to use sweet grass baskets as rice fanners to separate the husks. From the 1600's through the 1800's, the African rice



cultivation methods were used and became the cornerstone of the state's economy. African slaves who labored on rice and cotton plantations made South Carolinian plantation owners very wealthy until after the Civil War and the abolition of slavery. Although slavery was ended in 1865, the plantation system continued in the form of sharecropping, trapping former slaves and their descendents in economic servitude in some cases, through the 1950's. It is because of slaves and their agricultural knowledge and labor that South Carolina was ever able to prosper. In addition to impacting our economic and political history, slavery has shaped and influenced our cultural history through its legacy of African-American language and tradition. Learn more about West African cultural heritage through Knowitall.org at Gullah Net, or find lesson plans about slavery at Knowitall.org through the Teaching American History in South Carolina Web site. In the Estuary Module of RiverVenture, look for an object relating to the City of Charleston to learn more about rice cultivation in the lowcountry. Read more about rice grown in South Carolina in the History of South Carolina Slide Collection at Knowitall.org.

2. Several Forts sit on the convergence...

Castle Pickney: XYZ affair, War of 1812, Civil War

Fort Sumter: Civil War

Fort Moultrie: Revolution and every war up to WWII

Fort Johnson: Revolution, Civil War

Look for the connection between the Cabbage Palmetto and Revolutionary War forts in the Estuary module of RiverVenture.org.

3. Tannic acid that is drawn from decaying trees and leaves help to create a nutrient-rich tea.

4. English colonists from Barbados were responsible for the first European settlement of South Carolina at Charleston in 1670. For the first 50 years in the existence of Charles Towne (Charleston), Barbadians had a great influence on the laws, culture, architecture, trade, and people of the new colony. Most notably, the colonists implemented the Barbadian plantation system in South Carolina.

5. The estuary is where fresh water from rivers meets salt water flowing into the ocean. In estuarine environments, you are likely to find sea turtles, oysters, shrimp, crabs, dolphins, shore birds, and many others, including millions of different kinds of plankton that help sustain the ocean and the planet. Find more examples of animals of the estuary at Knowitall.org in the Estuary module of RiverVenture!

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

2-2.3 Explain how distinct environments throughout the world support the life of different types of animals.

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

3-2.3 Recall the characteristics of an organism's habitat that allow the organism to survive there.

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

3-3.5 Illustrate Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).

3-3.6 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 the characteristics of distinct environments (including swamps, rivers and streams, tropical rain forests, deserts, and the polar regions) influence the variety of organisms in each.

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).

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

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

7-4.5 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.

