



web of water

Web of Water Webisode 2: In the Piedmont Discussion Questions and Answers

South Carolina Science Standards Grades 1-12

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

QUESTIONS:

1. What are some of the ways that man has adapted the waterways to his needs?
2. These rivers have always served as a mode of transportation and trade. What trade items have been popular along the Upper Saluda during its history? How did the trading of these goods effect the populations along the rivers?
3. What is a canal? What are some of the uses of a canal?
4. I was able to see a number of minerals along the waterway that had become apparent from erosion. What is a mineral?
5. The Piedmont experienced a Gold rush in 1827 -- proving that ores are abundant near the Upper Saluda. What is an ore?
6. We see a lot of red clay in the Piedmont. What valuable commodity was fashioned from this Red Clay that helped build our cities?
7. We paddled near historic Laurens tracing the steps of American Revolutionaries. What revolutionary battles took place in the Piedmont, near the Upper Saluda?

ANSWERS:



1. Man has done much to shape the character of the river and adapt it to his needs. He uses the river and its resources for drinking water, agriculture, fishing, trading, travel, and power in the form of hydro-electric dams, as well as for recreation. Learn more about rivers and how we use them through Knowitall.org at RiverVenture.org.

2. Trade items that have been popular on the Upper Saluda have varied throughout history. First deerskins were traded between the Cherokee and settlers. Later cotton was transported down the river, and in more recent history, it has served as a mainstay of the textile industry. All of these have greatly affected the social and economic life of people living along the river. Learn more about trade along the three rivers at RiverVenture.org. Look for information about Congaree Town, Old Fort Congaree, the Cherokee Path, the Town of Granby, and the Saxa Gotha Township.

3. A canal is a man-made channel that connects two bodies of water. They are often used to allow boats to travel around geological obstacles. Learn more about canals, their structure, the canal era and its contribution to hydroelectricity in the Three Rivers module of RiverVenture.org.

4. A mineral is a naturally occurring substance formed through geological processes with specific physical and chemical properties. Examples of minerals include diamonds, quartz, topaz, and fluorite. A rock such as granitic gneiss, by comparison, is an aggregate of minerals and need not have a specific chemical composition. Learn more about rocks, minerals and geologic processes in the Carrick Creek module of RiverVenture.

5. An ore is a volume of rock containing components such as metals or minerals in a mode of occurrence that renders it valuable for mining. An ore must contain materials that are valuable in concentrations that can be profitably mined, transported, milled, and processed, or able to be extracted from waste rock. Examples of ore include crystallized gemstones, or metals like iron, gold, lead and copper, among others used as components in alloys. Ore deposits form from intense metamorphism and other processes involving water, heat and pressure. Find out more about natural resources and how they can be used in art through Knowitall.org at A Natural State. See the teacher resources in A Natural State for supplementary materials, including Minerals Mined in South Carolina and Some of Their Uses.

6. Red clay was used to make brick, an important component in the growth and development of all early South Carolina cities and towns. Find out more about making bricks by reading about the brick kilns and the clay quarry along the three rivers at RiverVenture.org.

7. The Revolutionary War battles of Ninety-Six and Musgrove's Mills were fought near the Upper Saluda.

GRADE 1

Earth Materials



Standard 1-4: The student will demonstrate an understanding of the properties of Earth materials. (Earth Science)

Indicators

1-4.6 Exemplify Earth materials that are used for building structures or for growing plants.

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

- 3-3.1 Classify rocks (including sedimentary, igneous, and metamorphic) and soils (including humus, clay, sand, and silt) on the basis of their properties.
- 3-3.2 Identify common minerals on the basis of their properties by using a minerals identification key.
- 3-3.5 Illustrate Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).
- 3-3.7 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

4-2.6 Explain how organisms cause changes in their environment.

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.
- 7-4.6 Classify resources as renewable or nonrenewable and explain the implications of their depletion and the importance of conservation.

GRADE 8

Earth's Structure and Processes

Standard 8-3: The student will demonstrate an understanding of materials that determine the structure of Earth and the processes that have altered this structure. (Earth Science)

Indicators

- 8-3.5 Summarize the importance of minerals, ores, and fossil fuels as Earth resources on the basis of their physical and chemical properties.

9-12

EARTH SCIENCE

Solid Earth

Standard ES-3: Students will demonstrate an understanding of the internal and external dynamics of solid Earth.



Indicators

- ES-3.7 Classify minerals and rocks on the basis of their physical and chemical properties and the environment in which they were formed.
- ES-3.8 Summarize the formation of ores and fossil fuels and the impact on the environment that the use of these fuels has had.

