5Es

Engage
Elaborate
Evaluate
Explore
Explain

VIRGINIA'S 5 C's

Virginia Department of Education

SOL: 4.8 Earth Resources

Scientists at Work:

Time:

Evaluate 4.8a Watersheds and water

Virginia

Madison

Amherst   King William

James River

Littleton

1. Which of these towns is in the James River watershed?

a. Amherst
b. Madison
c. King William
d. Littleton
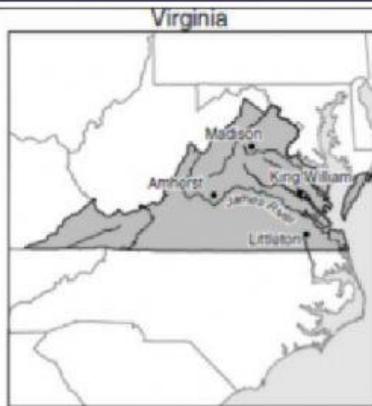
2. Which of these is a natural resource of Virginia?

a. a dam
b. a glacier
c. a river
d. a power plant

Geographic Regions of Virginia

Appalachian Plateau

Valley and Ridge

Piedmont   Coastal Plain

Blue Ridge Mountains
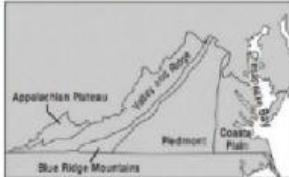
Chesapeake Bay

3. Which geographic region of Virginia has the least impact on the water qualiuty of the Chesapeake Bay?

a. Appalachian Plateau
b. Coastal Plain
c. Piedmont
d. Valley and Ridge

4. Which is the best action to protect water resources in Virginia?
a. dispose of pet waste in a stream
b. rinse spilled gasoline with a hose
c. organize a river cleanup program
d. put hazardous waste in with house trash

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Evaluate 4.8c: Minerals, rocks, and ores

1. Which of the following can be mined in Virginia and used as an energy source?

    a. coal
   b. gravel
    c. granite
    d. limestone

2. Granite is a type of rock. It can be found in Virginia's Appalachian Mountains. How do people use granite?

    a. People use granite to make cloth.
    b. People grow many types of crops on gravel.
    c. People use granite to make electronics.
    d. People use granite as a building material.

3. Which of the following is an advantage of coal mining in Virginia?

    a. Coal is shiny and found in the ground.
    b. Burning coal can produce air pollution.
    c. Coal is a nonrenewable resource.
    d. Coal can be used to make heat and electricity.

4. The graph shows the value of minerals found in Virginia. Which statement best describes the data?
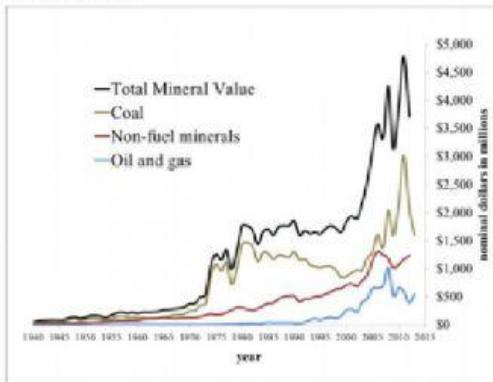
a. Virginia's minerals are not valuable.

b. Non-fuel minerals are increasing in value.

c. Forest products are the most valuable resource in Virginia.

d. Oil and natural gas are not found in Virginia.

Evaluate 4.8b: Plants and animals

1.   Which can be used to prevent soil erosion?

a.   planting grass
b.   raising grazing animals
c.   digging ditches
d.   spraying with water

2. Which of the following is a common plant that grows wild in Virginia?

a.   orange tree
b.   cactus tree
c.   lemon tree
d.   Dogwood tree

3. Animals are used for meats such as beef, poultry, and pork. Animals are also used for non-food products.

Which of the following non-food products is from an animal?

a.   plastic
b.   cork
c.   rubber
d.   leather


Where Things Grow in Virginia

4. Which statement is best supported by the above graphic?

a. Virginia has a mild climate and receives about 40 inches of rain each year.
b. A wide variety of crops and livestock are found across Virginia.
c. Plants rely upon three ingredients to grow: the sun's energy, water, and rich soil.
d. About 20 out of every 100 Virginia jobs are held in agriculture.

Evaluate 4.8d:Forests, soil, and land

1. Trees are cut down for use as a natural resource. Most of the cleared land is then used for farms. The graph below shows how the amount of forest area changed over time in the United States.

Modified from image courtesy of USDA
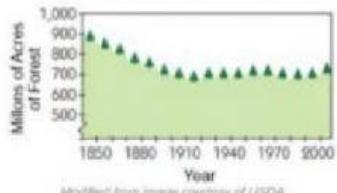
How did this decrease in forest area from 1850 to 2000 change the environment?

- A. It decreased the amount of pollution that could harm animals.
- B. It increased the amount of shade that animals could use to hide.
- C. It increased the kinds of habitats that animals could use.
- D. It decreased the amount of land that animals could use for habitats.

2. Which of these human activities most relies on high quality soil?

- a. hiking
- b. hunting
- c. coal mining
- d. agriculture

3. According to this graphic, which of these is the most important product of Virginia forests?

- a. pecan trees
- b. pine cones
- c. hardwood lumber
- d. maple leaves

Forest Types in Virginia (2012)