

SAVING SOIL RESOURCES

a It is important to understand why something is a problem. Here, the opening sentences provide background about the problem the author will identify later.

b You may have to read through much of the text before you are able to identify the problem.

Soil might seem like just the dirt beneath our feet, but soil is one of Earth's most important resources. Soil is necessary for plant life and, therefore, is necessary for the survival of all animals, including humans. Because soil takes a long time to form, it is basically a nonrenewable resource. Yet we lose millions of acres of farmland soil each year to erosion. Certain agricultural practices, such as intensive farming on steep slopes, increase erosion. Erosion also increases when forests are cut or fields are cleared of vegetation because of the removal of plant roots that hold soil in place. Still, farmers do have methods to conserve soil. These methods include making terraced fields on steep slopes and limiting the digging up and plowing of fields during planting. Leaving stalks and other crop waste on fields to stabilize the soil also prevents rain from washing soil away. Conservation methods are working in many places, but drought conditions can kill plant cover and again increase soil loss.

CONTENT TOPICS

You might think that soil is abundant and forms easily. But a basic part of soil is weathered or broken rock. It can take hundreds of years for even a thin layer of soil to form.

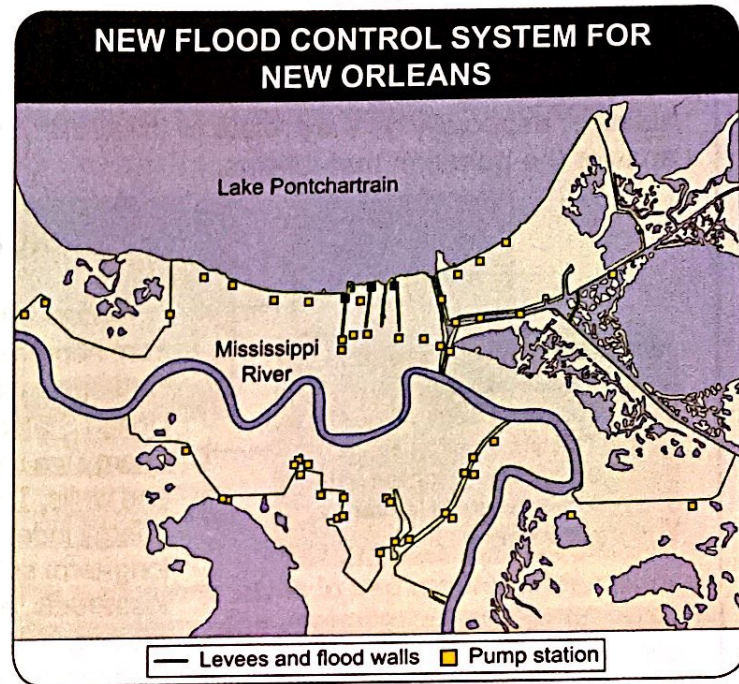
1. Why should people be concerned about the problem of soil erosion?
 - A. Soil is necessary for our survival.
 - B. Intensive farming increases erosion.
 - C. Drought conditions can kill plant cover.
 - D. No methods for conserving soil are available.

DIRECTIONS: Read the passage, and study the map. Then read the question, and write your response on the lines. This task may take approximately 10 minutes to complete.

AFTER KATRINA

Hurricane Katrina struck New Orleans in August 2005, destroying thousands of homes and leaving most of the city under water. A storm surge pushed water up interior canals. It caused flood walls to fail and allowed water to pour into the city's lowest neighborhoods, which sit in a basin as much as 17 feet below sea level.

Each year, 30 square kilometers (12 square miles) of wetlands between New Orleans and the Gulf of Mexico are lost due to subsidence. These wetlands absorb some of the force of storm surges from the Gulf, protecting New Orleans. As they disappear, the city is more vulnerable to storms. A new system of flood protection was erected in and around New Orleans in the years after Katrina. It is meant to protect the city from other storms like Katrina. Such storms have been rare in the past but could be more frequent in the future due to climate change and the warming of tropical waters where they develop.



2. In the aftermath of Katrina, many owners of destroyed businesses have had to decide whether to rebuild in New Orleans or go elsewhere. Consider the information in the passage and map. Then explain why rebuilding in New Orleans might present problems for businesses, and evaluate whether the solution engineers have devised will be effective.

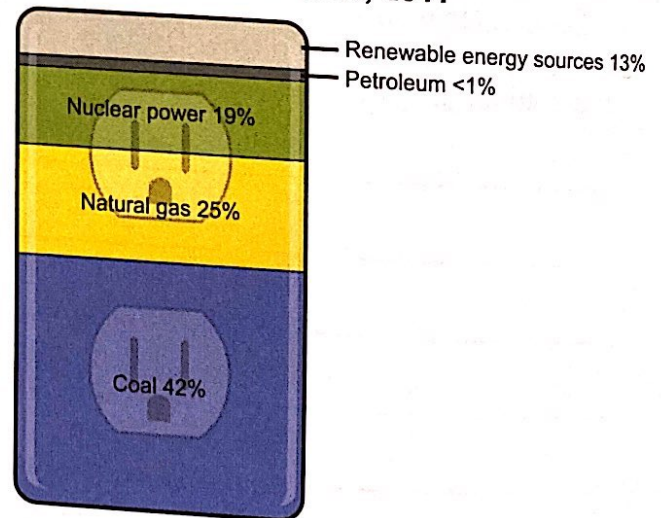
NONRENEWABLE VERSUS RENEWABLE ENERGY

a Information in a reliable source can be used to support a point of view. This information supports an argument for the use of nonrenewable energy resources.

b Some sources contain information that supports more than one point of view. This fact supports an argument for using renewable energy resources.

Almost 90 percent of the energy we use to produce electricity comes from nonrenewable energy sources, such as coal and natural gas. Nonrenewable energy sources are those that are limited in supply. The United States has large reserves of coal and natural gas, so much of the energy we use to light our homes and offices comes from our own mines and wells. This factor is crucial to the movement of the United States toward energy independence. However, nonrenewable energy sources are not a long-term solution for the nation's energy needs. Moreover, the burning of fossil fuels, especially coal, produces carbon dioxide. Most scientists now recognize this gas as a major contributor to climate change. Renewable sources, such as water, the sun's energy, and wind, do not add to atmospheric warming, but today the United States uses these options only sparingly in power plants.

SOURCES OF U.S. ELECTRICITY GENERATION, 2011



TEST-TAKING TIPS

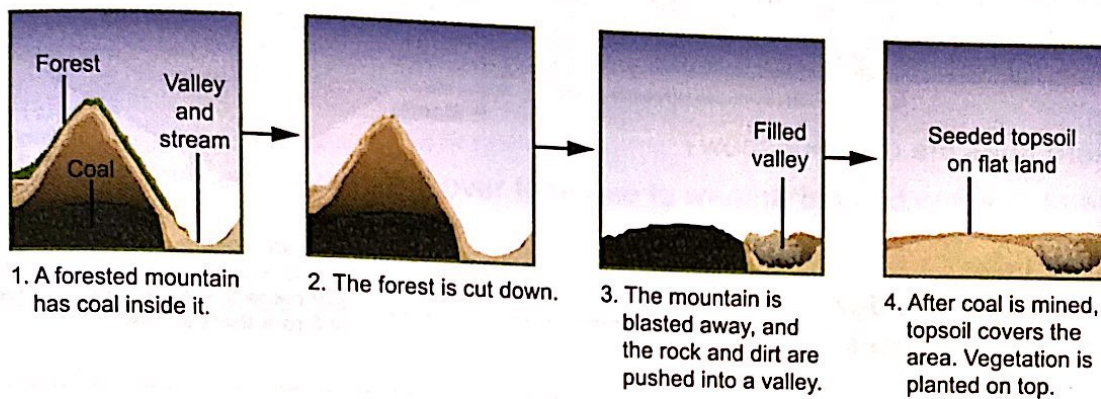
A question may ask you to identify an argument that is based on the material being presented. Read all answer choices carefully, and eliminate any not supported by associated text or graphics.

1. Based on the information, which statement expresses an argument for using renewable energy sources to produce electric power?
 - A. They cost much less than other energy sources.
 - B. They are available in limited supplies.
 - C. The United States already uses them to produce electricity.
 - D. Their uses do not release carbon dioxide.

DIRECTIONS: Study the information and diagram, and read the question. Then use the drag-and-drop options to complete the table.

MOUNTAINTOP-REMOVAL COAL MINING

Mountaintop removal is a very efficient means of strip-mining coal used primarily in Appalachia. Where coal is found deep in mountainous areas, the mountains are blasted away to get at the deposits underneath. The broken rock and dirt is carted away and dumped into nearby valleys. Then huge machines scoop out the coal.



2. People in a community in West Virginia have heard that a company wants to use mountaintop removal to take coal from a nearby mountain. At a town meeting, residents presented arguments for and against mountaintop-removal mining. Determine which drag-and-drop options are pros and which are cons. Then record each argument in the correct column in the table.

Pros	Cons

Drag-and-Drop Options

It provides jobs in an area that badly needs them.	Removal of forests increases erosion on steep slopes, and flooding results.
Diverse forest ecosystems are destroyed and cannot be re-created after mining.	It is safer than mining in deep shafts.
Blasting, mining, and washing the coal can emit unhealthful amounts of coal dust into the air.	It increases domestic supplies of coal, which are preferable to imported oil.