

Landforms are _____.

a. Marshes

b. Cliffs

c. Deltas

d. All of the above

A scientist was examining a large boulder that was covered with lichens (a combination of fungi and algae). He chipped a piece of the rock and placed it under a microscope. He observed that the surface of the rock was breaking down underneath the lichen. Which was the scientist most likely observing?

a. The interaction between abiotic factors

b. The effect of chemical weathering

c. The process of deposition

d. The effects of abrasion

Gravity, ice, wind, and water are agents of _____.

a. Runoff

b. Erosion

c. Abrasion

d. deflation

Ice wedging is an example of

_____.

- a. Weathering**
- b. Metamorphism**
- c. Cementing**
- d. depositon**

U-shaped valleys are formed by

_____.

a. Rivers

b. Glaciers

c. Rock slides

d. Lakes

Mechanical weathering can result from the action of all of the following **EXCEPT:**

a. Burrowing by animals

b. Ice wedging

c. Carbonic acid

d. Plant roots

What causes sediment and rock to move to lower elevations through time?

a. Sunlight

b. Plant roots

c. Gravity

d. Dust storms

A beach is a _____ force.

a. Constructive

b. destructive

Which is the best definition of weathering?

a. Settling of earth materials when water slows down

b. Swelling of earth materials as they soak up water

c. Cracking of rocks from wind, water, plants, or animals

d. Transport of earth materials by wind, water, or ice

Minerals are composed of one or more _____.

a.Elements

b.Colors

c.Rocks

d.structures

Students notice after a rain that a construction site showed more pebbles and small rocks exposed on a sloped surface than on a level area which was covered with sand and mud. The best explanation for this is that the

- a. Rocks had not weathered into sand and mud on the level area**
- b. Rain moved sand and mud away from the rocks on the sloped surface**
- c. Sand and mud are generally found in low places on level areas**
- d. Rocks prevent soil from eroding from the slope**

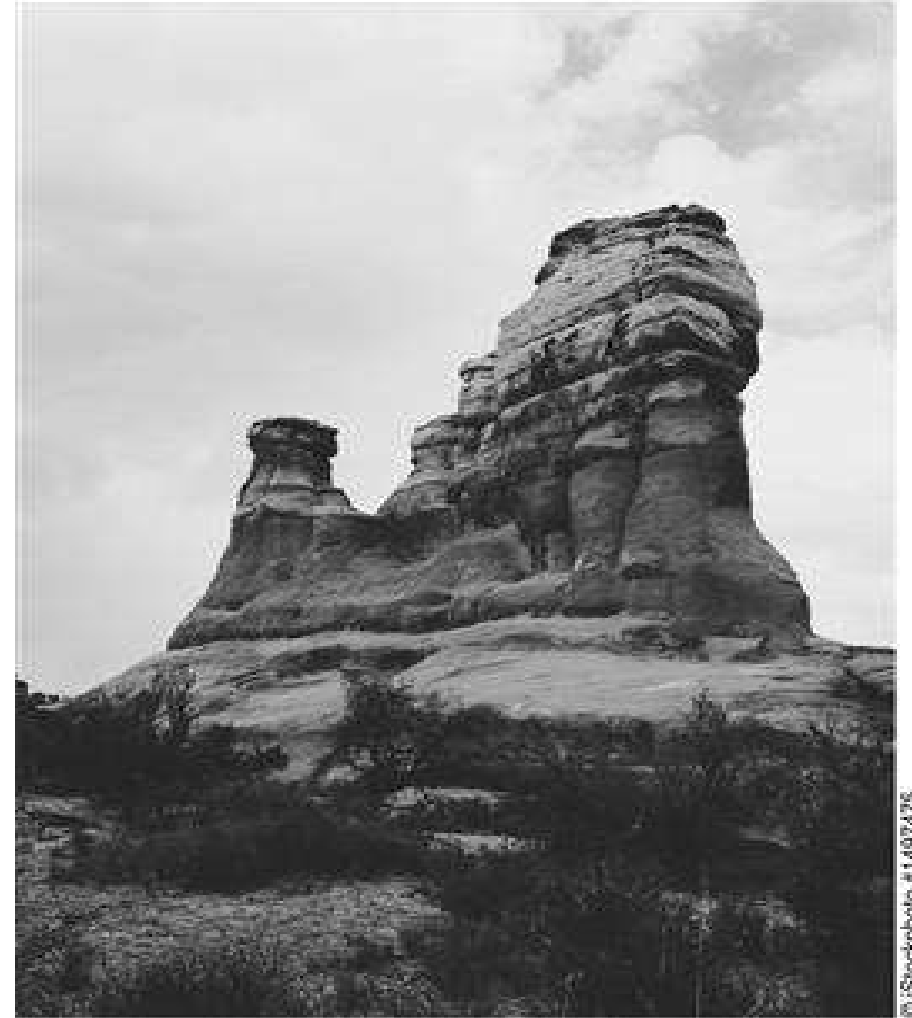
What is the most likely cause of the shape of the rock formation in the photograph?

a. Weathering

b. Volcanic action

c. Earthquake compaction

d. Tectonic plate movement



Which process is most directly related to constructing new land?

a. Erosion

b. Polluting

c. Deposition

d. weathering

Mudslides move large amounts of material from one place to another. This type of movement is called

a. Erosion

b. Ice wedging

c. Physical weathering

d. Chemical weathering

Which statement does not describe how a mountain can form?

- a. Layers of rock fold and lift up when Earth's crust moves**
- b. Volcanic eruptions deposit molten rock on Earth's surface**
- c. A glacier moving down a valley deposits debris on Earth's surface**
- d. The block of rock from one side of a fault is pushed up when two plates collide**

Which of the following has been formed on the Asian continent by two continental plates that have been pressing together for millions of years?

a. Large fields of gravel

b. A tall mountain chain

c. Large freshwater lakes linked by rivers

d. An uneven thickness of sedimentary layers

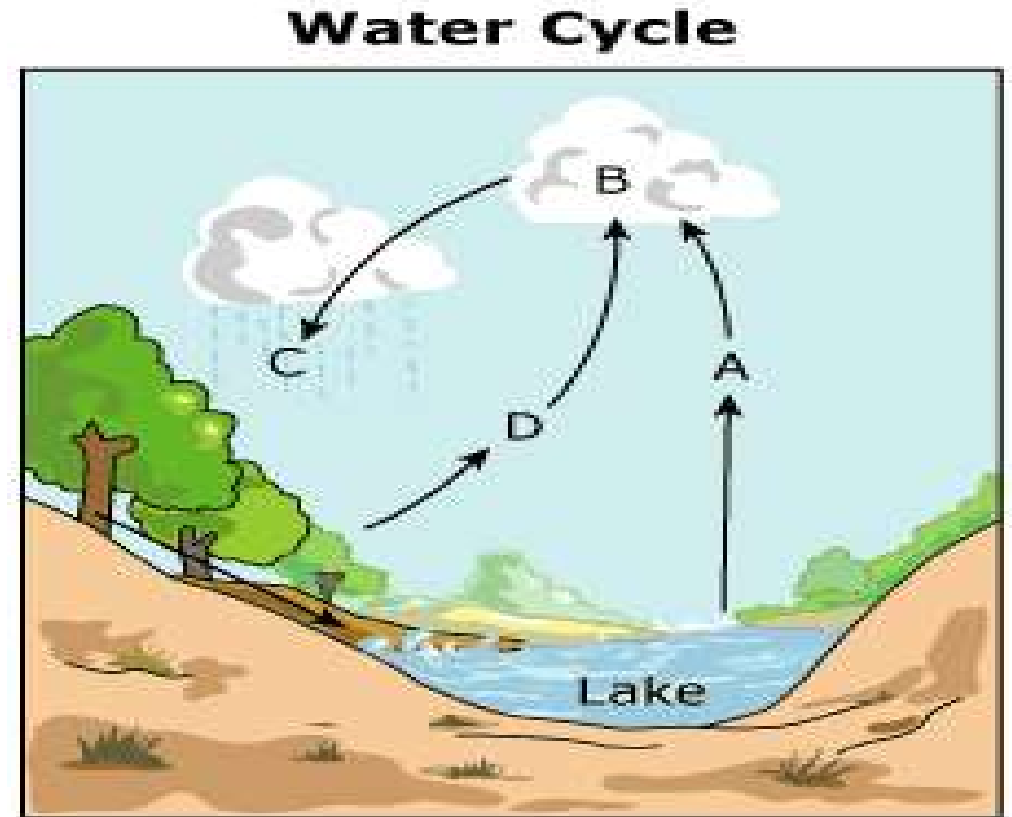
The diagram shows parts of the water cycle.
Which point represents precipitation?

a.A

b.B

c.C

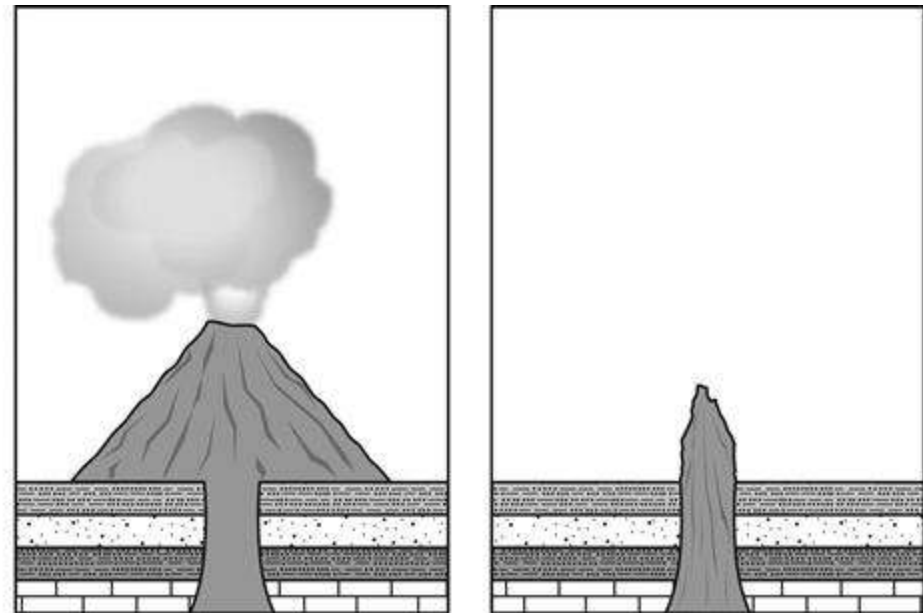
d.D



The drawing on the left represents the way a volcano may have looked millions of years ago. All that remains today is the volcanic neck that is shown on the right.

What process has most likely caused the reduction in the size of the volcano?

- a. lava flows**
- b. plate movement**
- c. intrusions**
- d. weathering**



Geologists were investigating some large boulders that they found in Yosemite National Park, California. They concluded that they were transported by a form of erosion.

What agent of erosion most likely transported these boulders?

a. Glacier

b. Gravity

c. Water

d. wind



Which of these serve as protective barriers along coastlines and are often destroyed when hit by a strong hurricane?

- a. The erosion of land along the coastline**
- b. The building of dunes along the coast over time**
- c. The new construction of buildings along the coastline**
- d. The buildup of organic material from oil rigs along the coast**

Which of the following is a **LIKELY** reason for a sinkhole to form?

- a. The removal of underground resources**
- b. A collision between two tectonic plates**
- c. Dense rock formation under the topsoil**
- d. Buildup of sediment on the ocean floor**

Before large trees could grow on Earth, what had to happen first?

a. Rocks were eroded to form soil

b. Molten rock warmed Earth's interior

c. Earth's gravity accumulated to modern levels

d. Volcanoes exploded to form mountaintop lakes

The pattern of weather that occurs in a particular area?

a. Soil profile

b. Litter

c. Climate

d. Oxidation

Surface processes that work together to break down rock is called _____.

a. Soil

b. Leaching

c. Weathering

d. Humus

Why is the A horizon darker than the other horizons?

a. It gets stepped on the most

b. It has all the dead leaves on it

c. It has the most humus

d. It has the most rock

Soil is a mixture of all of the following
EXCEPT:

a. Weathered rock

b. Organic matter

c. Erosion

d. Air

How does the presence of organic matter contribute to good soil?

a. It adds nutrients to the soil

b. It helps the soil to dry out

c. It keeps the soil cool

d. It destroys bacteria in the soil

Which soil characteristic helps plants obtain the water and air necessary for growth?

a. Porosity

b. Texture

c. Color

d. Composition

Soil will pack down over time which decreases the ability of the soil to hold water. Which animals would best help the soil hold water?

- a. Earthworms making tunnels under the surface**
- b. Cattle making depressions with their hooves**
- c. Horses making trenches when they gallop**
- d. Sheep pulling up plants by their roots**

Which action most often causes sinkholes to form on the surface of Earth?

a. Removing groundwater

b. Meteor impacts

c. Plates colliding

d. Mechanical weathering

The prairie grass ecosystem once had a deep layer of topsoil which was protected by the grasses that covered it. Removal of these grasses for farmland is causing the soil to be eroded mainly by

a. Wind and rain

b. Animal movement

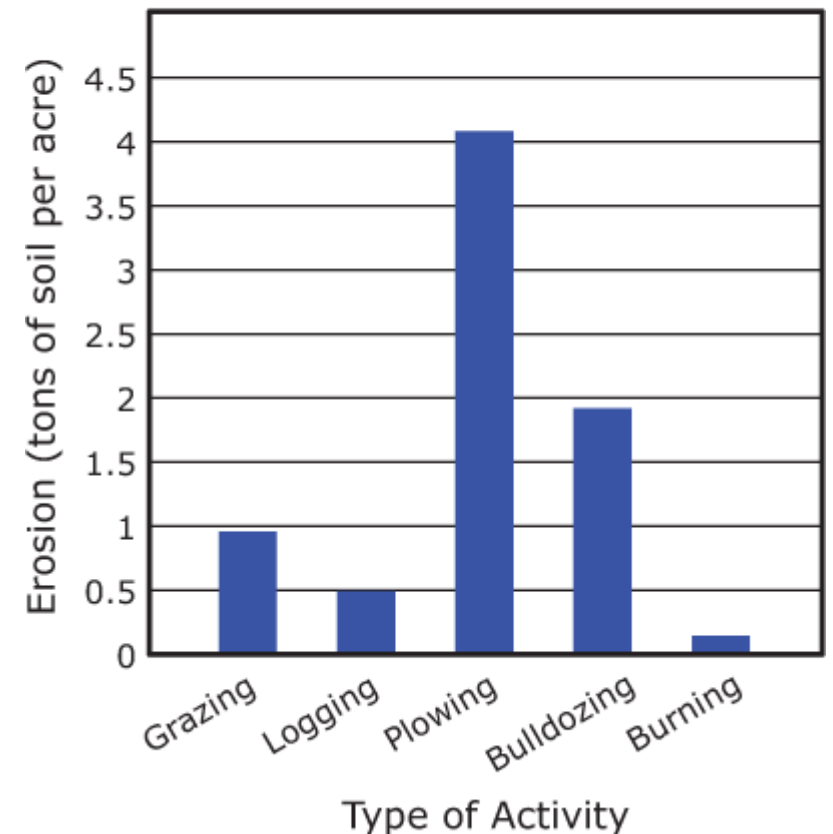
c. Crops grown in the soil

d. Increased temperatures

Scientists studied soil erosion in an area of the south-eastern United States. They measured the amount of erosion on land affected by different activities. The graph shows the results of the study.

According to this graph, which activity would likely cause the **most** erosion?

Yearly Erosion on Land Affected by Activities



- a. Forest fires**
- b. Cattle ranching**
- c. Home constructions**
- d. Vegetable farming**

When forest trees are cleared from the land, and trees are not replanted, which of the following will most likely occur?

a. Soil erosion

b. Sedimentation

c. Lightning fires

d. Increase in habitat

The left side of the river has been reinforced by a rock wall to prevent erosion.

Which would best help in preventing the right side of the river from being eroded?

a. Loose soil

b. Thick grass

c. Heavy rainfall

d. Increased grazing by animals

