

Before You Read

20/01/2019

This part of Earth is very cold. What is happening to the ground in this picture?

The ground is cracking

Essential Question

What can change land?

Weathering and erosion can change land.

Weathering is a slow change when water changes the shape and size of rocks.

Erosion is a fast change by wind, water and ice and moves the rocks and soil.

- 4 Observe.** Look at the canister after a few hours.
What happened?

The water inside the canister
froze and took up more space. It
forced the lid to pop off.

Explore More

- 5 Infer.** What do you think will happen if water freezes
in a rock?

When water freezes in a rock, the ice
~~rock~~ can break the rock.

Open Inquiry

Investigate the effects of ice on land.

My question is:

What does ice do to land?

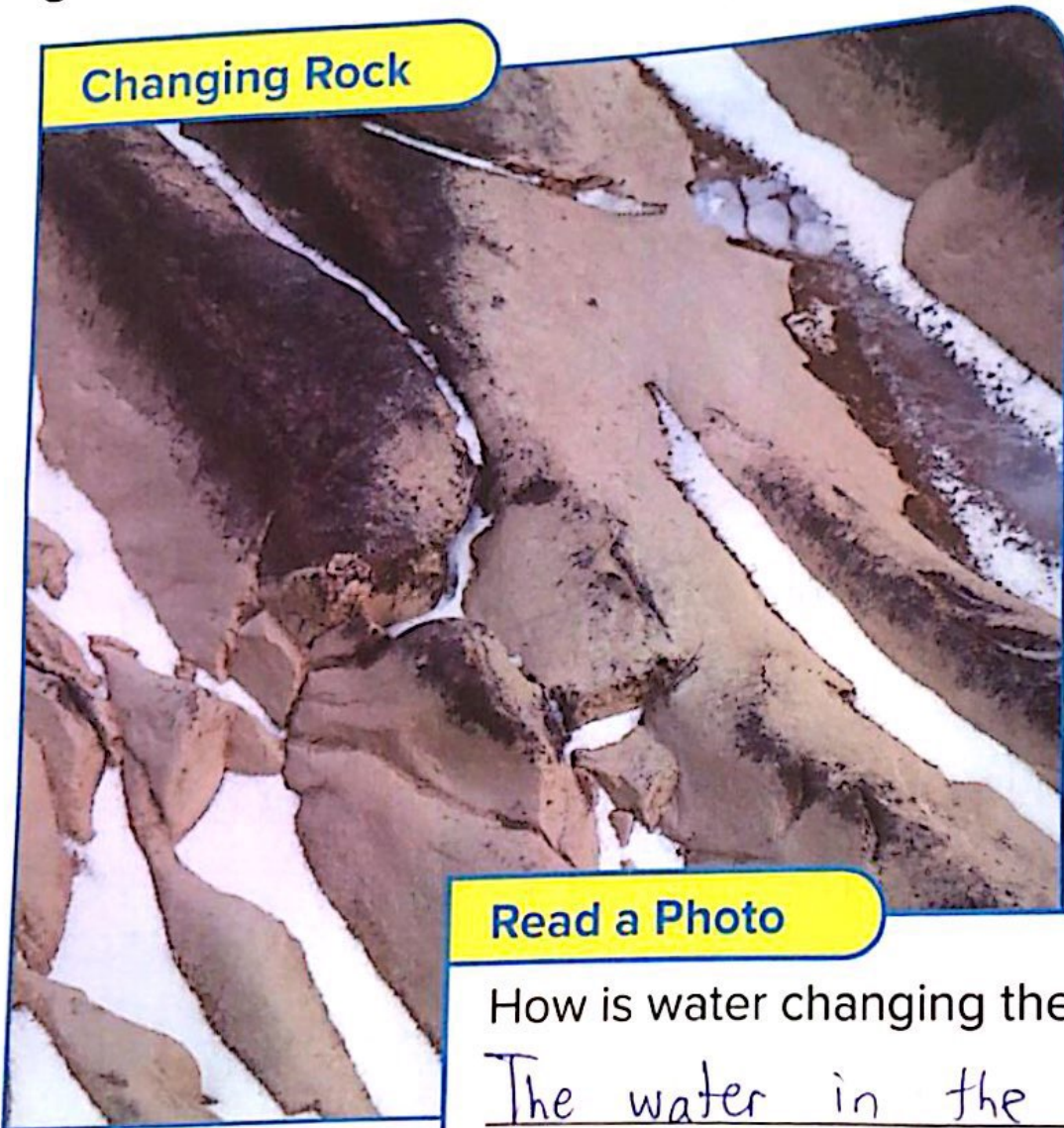
Read and Respond

What is weathering?

Earth changes every day. Did you know that water can change the shape and size of rocks? This is called **weathering**.

When water gets into cracks in a rock, it can freeze and push the rock. The cracks get bigger and the rock breaks.

Changing Rock



Read a Photo

How is water changing these rocks?

The water in the rock
freezes and makes the cracks
bigger.

broken rocks far away. Then they are dropped in new places.

Deposition is the dropping off of weathered rock. Erosion and deposition work together to change Earth's surface.

Quick Lab

Pour water over sand. **Observe** erosion.



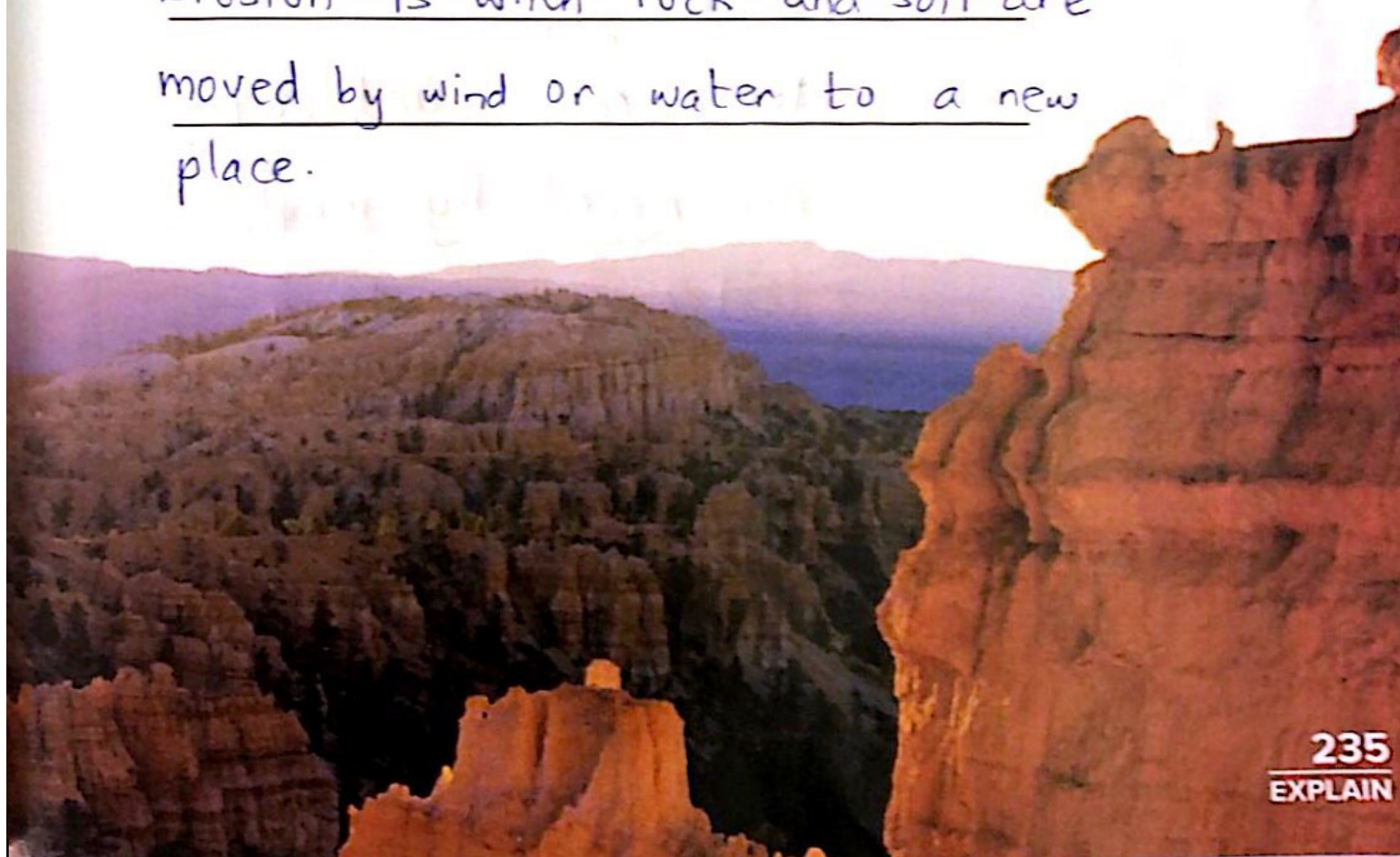
Plants can help prevent erosion.

A plant's roots help hold soil in place so wind and water cannot move it.

✓ Quick Check

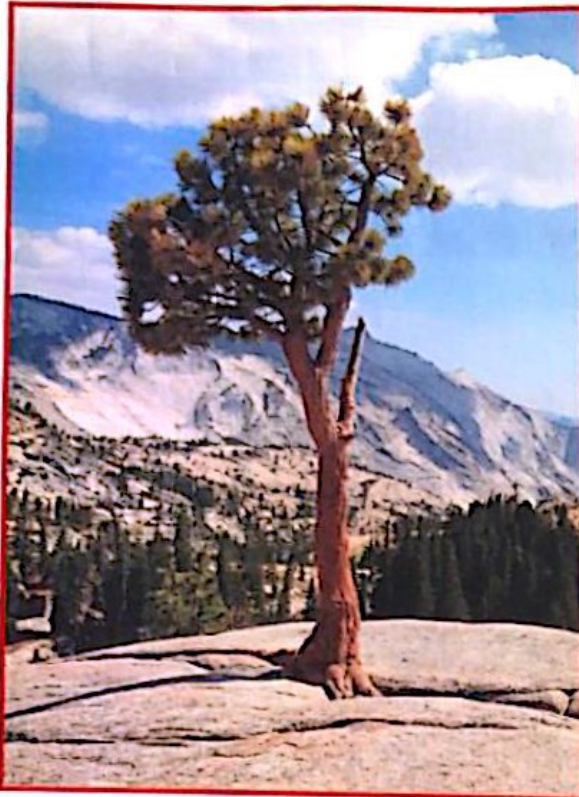
2. What is erosion?

Erosion is when rock and soil are moved by wind or water to a new place.



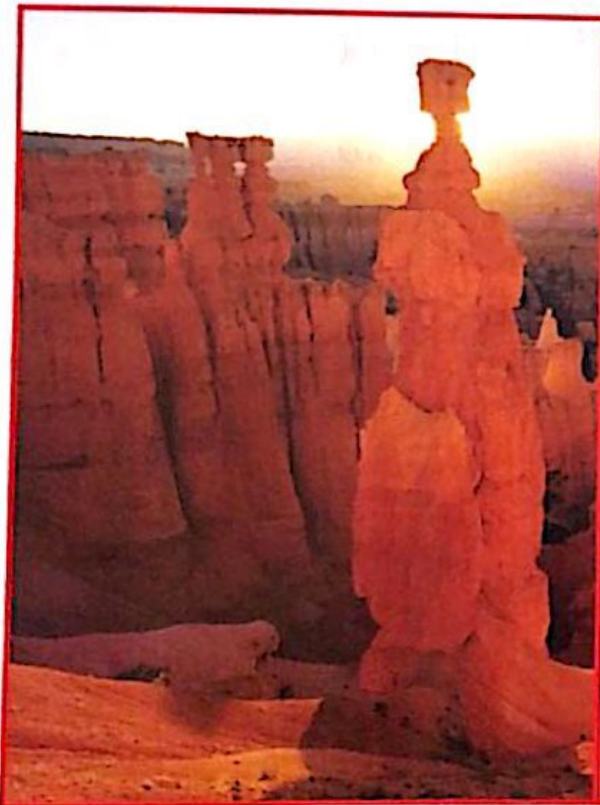
Visual Summary

Write about what you learned.



Weathering

It can cause water to change the shape and size of rocks. The water in the rock can freeze and break the rocks. This happens slowly.



Erosion

When rocks and soil are moved by wind, water or ice to a new place. This happens slowly or quickly.

CHAPTER 8 Review

Vocabulary

Use each word once to complete the sentences.

1. The seven large pieces of land on

Earth are called

continents.

2. This moving water that flows into a lake or ocean is a

river.

3. Flat land that spreads out a long way are

plains.

4. This kind of land is called a

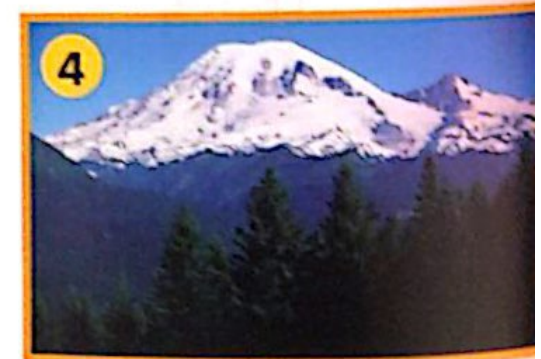
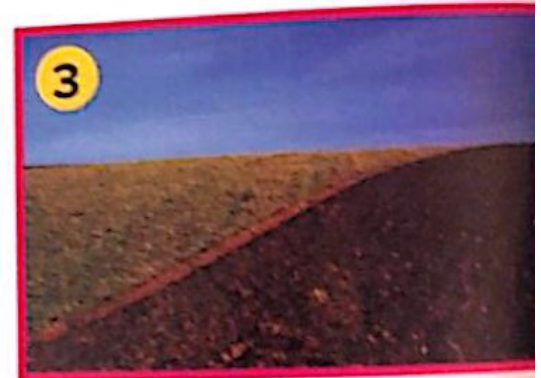
mountain.

continents

mountain

plains

river



Science Skills and Ideas

Answer the questions below.

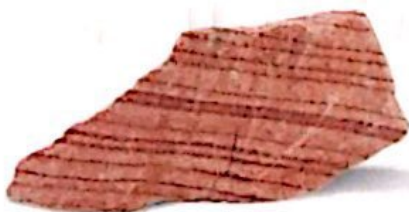
5. How can the land change?

Weathering and erosion can change land.
Weathering breaks the rock by wind, water
or ice. Erosion moves the rocks or soil
to new land.

6. **Make a Model.** How could you make a model of a kind of land forms?

I can make an island or lake
with clay and water. OR I can
make a mountain with clay.

7. **Put Things in Order.** Number these rocks from biggest to smallest. Label the biggest rock 1, the medium rock 2, and the smallest 3.



1



3



2

1. Which does not contain freshwater?

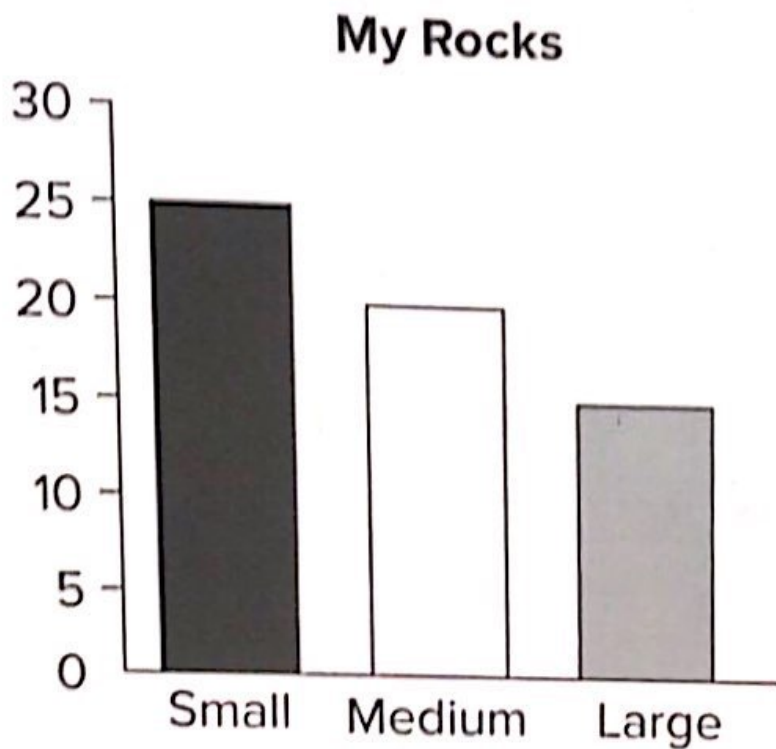
A a lake

☒ B an ocean

C a stream

D a river

2. Look at the chart Fahd made to compare the size of the rocks he found.



How many large rocks did he find?

☒ A 15

B 25

C 20

D 10

How can water break rock?

What to Do

Completed this in
the small book.
Activity Lab Manual (ALM)

- 1 **Make a Model.** Fill a film canister all the way with water. Put the cap on.



film canister



water

- 2 Have your teacher place the canister in a freezer.

- 3 **Predict.** What will happen to the water in the canister?

The water will freeze

weathering usually happens so slowly that you do not notice it. Many changes take thousands of years to happen.

Running water and wind can also cause weathering. Running water and wind pick up small rocks. These rocks scrape against other rocks. This scraping slowly wears away rocks.

✓ Quick Check

1. What can break a rock?

Ice

Plant roots

- ▼ Plants can also break rocks. As this tree's roots grow, they crack the rock.

FACT

Tree roots can grow under sidewalks and make them crack.

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EXPLAIN

Think, Talk, and Write

1 Vocabulary. What is deposition?

Is the dropping off of broken rock

2 Compare and Contrast. Describe two ways water can change rock.

① Water can freeze inside rocks and break them.

② Water can wash away rock and make canyons.

Essential Question What can change land?

Weathering and erosion can change land. Weathering
is when rocks are broken by wind, water or ice.

Erosion is when the rocks or soil are
moved to new land. by wind, water or
ice.

CHAPTER 8 Review

8. How are lakes and oceans different?

Oceans are large bodies of water.

A Lake ~~has~~ ^{is} water that has land all around it.

9. What are some ways water can change Earth?

① Water can wash away soil

② Water can make a canyon.

③ Water can freeze and crack rocks.



10. What does Earth look like?

Earth is made up of land and water. Most of Earth is covered by water.