

Name:

Date:

Directions: Read the passage and then answer the questions that follow.

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## Mountains Never Stay the Same

Mountains may look strong and unchanging, but Earth's processes are always shaping them. Over time, rocks in a mountain break apart and move from one place to another. This happens through **weathering, erosion, deposition, and sedimentation**.

At the top of a mountain, **weathering** breaks rock into smaller pieces. Weathering can happen when water freezes in cracks and expands, causing the rock to split. Wind and rain can also wear down rock surfaces. Even plant roots can grow into cracks and push rocks apart. Weathering does not move the rock—it only breaks it down.

Once the rock breaks into smaller pieces, **erosion** can occur. Erosion is the movement of sediment from one location to another. Gravity can pull loose rocks downhill, and rainwater can carry sediment into streams and rivers. Flowing water can move tiny particles like sand or larger pieces like pebbles.

As water carries sediment down the mountain, it eventually reaches flatter land. When a river slows down, it cannot carry as much sediment anymore. The sediment drops to the ground in a new location. This process is called **deposition**. Deposition often creates piles or wide areas of sand, dirt, and small rocks.

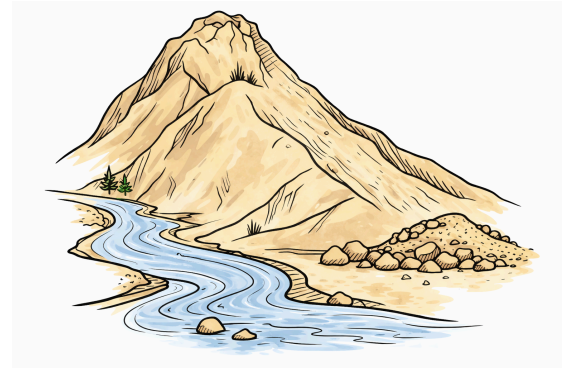
Over time, more and more sediment gets dropped in the same place. The sediment begins to form layers. This layering process is called **sedimentation**. After many years, the layers of sediment can be pressed together by weight and pressure. Eventually, they may harden into **sedimentary rock**. Sedimentary rock forms from layers of sediment that have been compacted and cemented together.

These processes show that mountains are always changing. Even though they may look the same from day to day, Earth is constantly reshaping them over long periods of time.

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### Stop & Think

1. In one sentence, what is this passage mostly about?
2. Circle the process that **breaks rock**: Weathering / Erosion / Deposition / Sedimentation
3. Circle the process that **moves sediment**: Weathering / Erosion / Deposition / Sedimentation



## Multiple Choice Questions (Circle the best answer)

1. What is the main idea of the passage?

- A) Mountains never change
- B) Mountains only change during earthquakes
- C) Mountains are made only of sand
- D) Mountains change over time because of Earth processes

2. What does weathering do?

- A) Drops sediment at the bottom of a river
- B) Breaks rock into smaller pieces
- C) Builds new mountain peaks
- D) Moves sediment from place to place

3. Which process moves sediment from one place to another?

- A) Deposition
- B) Sedimentation
- C) Erosion
- D) Weathering

4. The passage explains that deposition happens when—

- A) water speeds up and carries more sediment
- B) rocks completely disappear into the ground
- C) a river dries up and stops flowing
- D) a river slows down and drops sediment

5. What is sediment?

- A) A type of lava
- B) A kind of animal that lives in rivers
- C) Pieces of broken rock and soil
- D) A cloud layer in the sky

6. What is sedimentation?

- A) Layers of sediment building up over time
- B) Wind breaking rock into dust
- C) Water carving deep holes in rock
- D) Rocks bouncing downhill quickly

7. Which of these is an example of weathering from the passage?

- A) River carrying sand downstream
- B) Sediment dropping in a flat area
- C) Sediment being stacked into layers
- D) Water freezing in cracks and splitting rock

8. What can sedimentary rock form from?

- A) Melted lava cooling into solid rock
- B) Layers of sediment pressed together over time
- C) A single rock cracking into pieces
- D) Wind blowing soil across land

9. Which order best matches the sequence described in the passage?

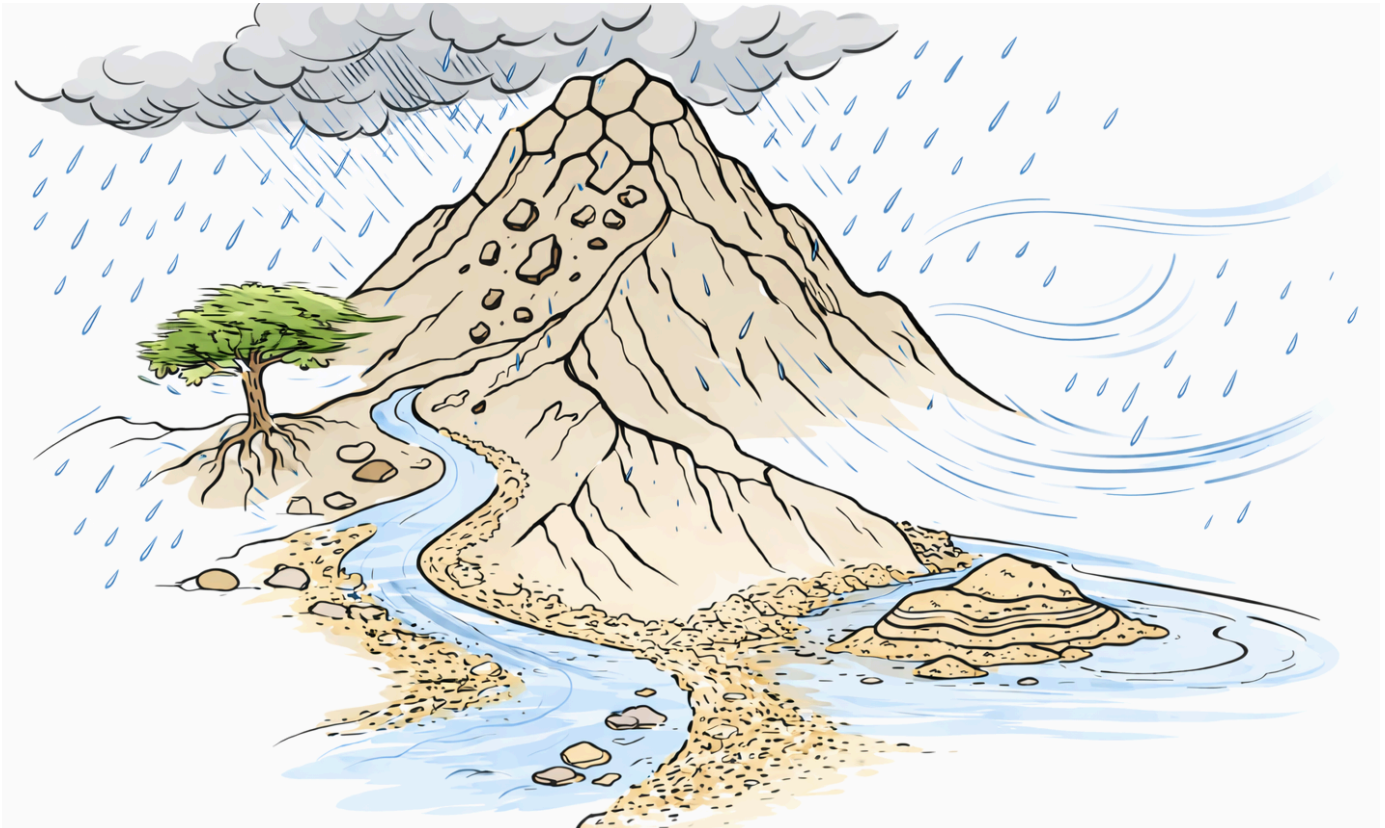
- A) Deposition → Sedimentation → Weathering → Erosion
- B) Erosion → Weathering → Deposition → Sedimentation
- C) Sedimentation → Erosion → Deposition → Weathering
- D) Weathering → Erosion → Deposition → Sedimentation

10. Why does deposition happen near the bottom of the mountain?

- A) The mountain pushes sediment upward
- B) The river freezes and traps sediment instantly
- C) The river stops moving completely
- D) The river slows down and can't carry as much sediment

## Mountain Diagram

**Directions:** Observe the mountain diagram. Look for evidence of **weathering**, **erosion**, **deposition**, and **sedimentation**. Then, follow the steps under **Label it!**



### **Label it!**

1. Circle an area where you think **weathering** has happened. Put a “**W**” inside the circle.
2. Circle an area where you think **erosion** has happened. Put an “**E**” inside the circle.
3. Circle an area where you think **deposition** has happened. Put a “**D**” inside the circle..
4. Circle an area where you think **sedimentation** has happened. Put an “**S**” inside the circle.

### **Explain it!**

Explain **all four** of your answers. Describe **what has happened** and **how you know**.

1.

2.

3.

4.

## ANSWER SHEET — *Mountains Never Stay the Same*

### Stop & Think

**In one sentence, what is this passage mostly about?**

**Sample Answer:** The passage explains how mountains change over time through weathering, erosion, deposition, and sedimentation.

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### Circle the Process Questions

**Circle the process that breaks rock:** Weathering

**Circle the process that moves sediment:** Erosion

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### Multiple Choice Answers

1. D) Mountains change over time because of Earth processes
  2. B) Breaks rock into smaller pieces
  3. C) Erosion
  4. D) a river slows down and drops sediment
  5. C) Pieces of broken rock and soil
  6. A) Layers of sediment building up over time
  7. D) Water freezing in cracks and splitting rock
  8. B) Layers of sediment pressed together over time
  9. D) Weathering → Erosion → Deposition → Sedimentation
  10. D) The river slows down and can't carry as much sediment
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## Mountain Diagram Answer Key (Teacher Guide)

Since students circle areas, answers will vary depending on what they circle, but here are some good locations:

### **W = Weathering**

Top of the mountain / rocky peak  
(rocks breaking apart into smaller pieces)

### **E = Erosion**

The river path flowing downhill.  
(sediment being carried/moved)

### **D = Deposition**

There are many opportunities here. The river shoreline, areas near the shoreline, and at the base of the mountain.  
(sediment piles up as water slows)

### **S = Sedimentation**

The layered sediment pile is near the base of the mountain in the area where water appears to be pooling.  
(sediment building up in layers over time)

## Explain It! (Sample Student Answers)

### **1. Weathering (W)**

**Sample Answer:** Weathering is happening near the top of the mountain because the rock is breaking into smaller pieces, like cracks and loose rocks falling.

### **2. Erosion (E)**

**Sample Answer:** Erosion is happening in the river because the water is moving sediment downhill from one place to another.

### **3. Deposition (D)**

**Sample Answer:** Deposition is happening near the bottom by the water because the sediment is being dropped and collected in one place.

### **4. Sedimentation (S)**

**Sample Answer:** Sedimentation is happening where the sediment is stacked in layers. There is layered sediment near the bottom of the mountain.



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