

Weathering, Erosion, and Deposition

Earth's surface is constantly changing and new land is constantly being formed! Rocks get *broken down* by **weathering**, moved through **erosion**, and **deposited**, or **dropped**, somewhere else through **deposition**.

Weathering is the process where rock is dissolved, worn away, or broken down into small pieces. Weathering can shape rocks into unusual formations. Water, wind, ice and plant roots are all causes of weathering. For example, rainwater can easily enter cracks in rocks. When it gets cold, the water may freeze and expand in the crack. The ice will eventually split the rock. Also, plant roots can grow in rocks and cause them to split.



Erosion is the process by which water, ice, wind, or gravity move pieces of rock and soil. The crushed rocks and rubble are called sediments and when it rains, they are washed away into streams. If it does not rain, strong winds can blow them away. Gravity makes soil and rocks move downhill. Erosion can happen quickly or take thousands of years. For

example, the Grand Canyon located in Arizona is a very big hole in the ground that is the result of constant erosion by the Colorado River. It took over millions of years as rocks were taken away.

Deposition is the dropping of sediment by wind, water, ice, or gravity. After pieces of the earth are moved through erosion, they are deposited somewhere else through deposition. It could be only a few feet away or many miles away. Deposition happens when water slows down or stops moving, the wind dies down or stops blowing, or when the glaciers melt. New landforms can also be created from the deposited material. For example, waves can deposit sediment in areas offshore, where they can build up to be sand dunes.



Weathering, erosion, and deposition are constantly changing our landscape. Can you imagine how most areas of our earth will look years from now?

Examples of Weathering, Erosion, and Deposition



Limestone shoreline weathering in Guam



Physical weathering in Iceland



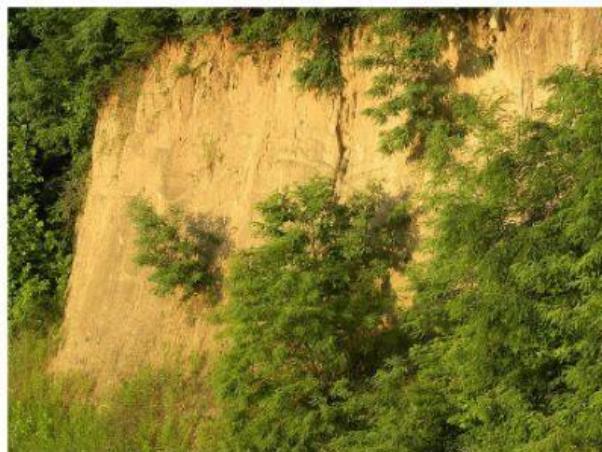
A natural arch produced by wind erosion in Jordan



A rock formation sculpted by wind erosion in Bolivia



Sand blown by wind deposits in the form of sand dunes in Death Valley



The wind deposits sediment that create a yellowish wall like structure called Loess in Mississippi US.

Name: _____

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1. What is weathering?
2. The *movement* of sediment from one place to another is the process of _____.
3. What are the four main causes of weathering?
4. The *dropping* of sediment by wind, water, ice, or gravity is known as _____.
5. What happens to a rock that has rainwater entering its cracks and then freezing?
6. What are sediments?
7. True or false: Erosion *always* takes a very long time to happen.
8. When wind dies down or stops blowing _____ happens.
9. What process involves the breaking of rocks over time due to wind?
10. What process is taking place when moving water is carrying away small pieces of rock?