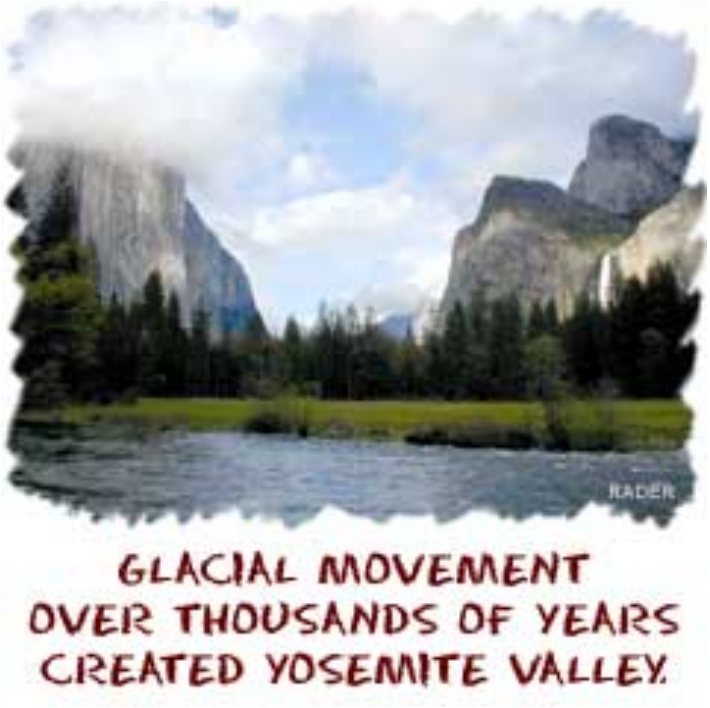
Break It Down

Erosion is the process that breaks things down. As far as we're concerned, erosion is the breakdown of the continents and the land around you. The overall effect of breaking down and **weathering** the land is called **denudation**. Denudation is the process of erosion. In nature, large things are broken down into smaller things. Boulders become sand. Mountains are rained on and become hills. The pieces of the mountain become smaller pieces and go down the sides of hills. Weathering and erosion always happen in a downhill direction.



Erosion is an easy idea to understand. If you see a rock, pull it out of a mountain. Then throw it down on the ground. You are now a part of the erosion of that mountain. You have taken a big object (a mountain) and started to make little objects out of it (a rock). When that rock hit the ground, it could have cracked and made some tiny pieces of rock (sand). Erosion is just that easy. When it rains, the same process happens. Rocks are washed down a mountain or down a stream. Soils are washed away. The ocean beats against a cliff and breaks it apart. They are all examples of denudation.

RIVER EROSION CREATED THE GRAND CANYON AS ROCKS WERE TAKEN AWAY.

Things don't just disappear. The masses of dirt and rock are moved to another form and place. Scientists call it mass wasting. The wasting is the loss of matter in one place. Mass wasting can happen two ways:
1) **mechanical**, similar to breaking a rock with a hammer; and
2) **chemical**, similar to pouring acid on a rock to dissolve it.

A surefire way to tell what is happening is to check the color of the rock. If a boulder breaks because of frost, you won't see a color change. If you see rock that has been near the ocean, you may observe color changes because it is oxidizing.

Does Erosion Build Things Up?

WETLANDS ARE SOMETIMES CREATED AT THE MOUTH OF A RIVER.

Erosion happens at the tops of mountains and under the soil. Water and chemicals get into the rocks and break them up through those mechanical and chemical forces. Erosion in one area can actually build up lower areas. Think about a mountain range and a river. As the mountain erodes, the river carries **sediment** downstream towards the ocean. That sediment slowly builds up and creates new **wetlands** at the mouth of the river. The swamps of Louisiana are good examples of sediment carried by the Mississippi River and collected at the end.

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