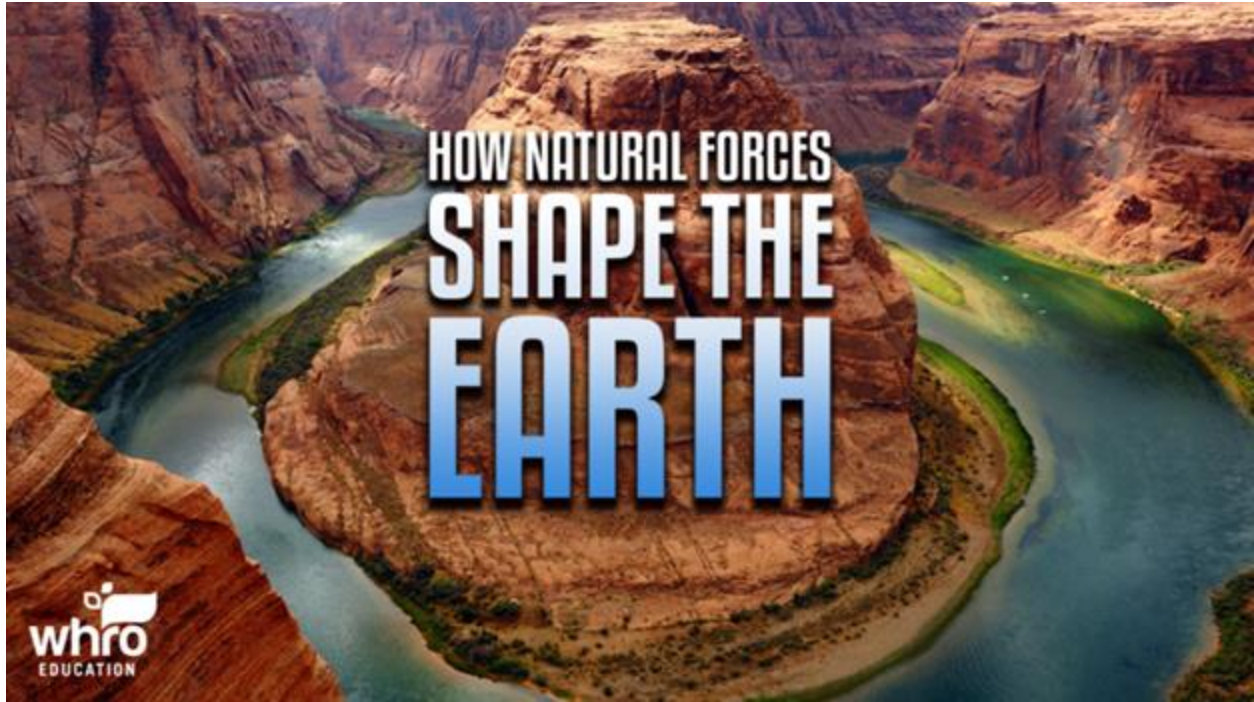


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Topic Content: How Natural Forces Shape the Earth

How Natural Forces Shape the Earth

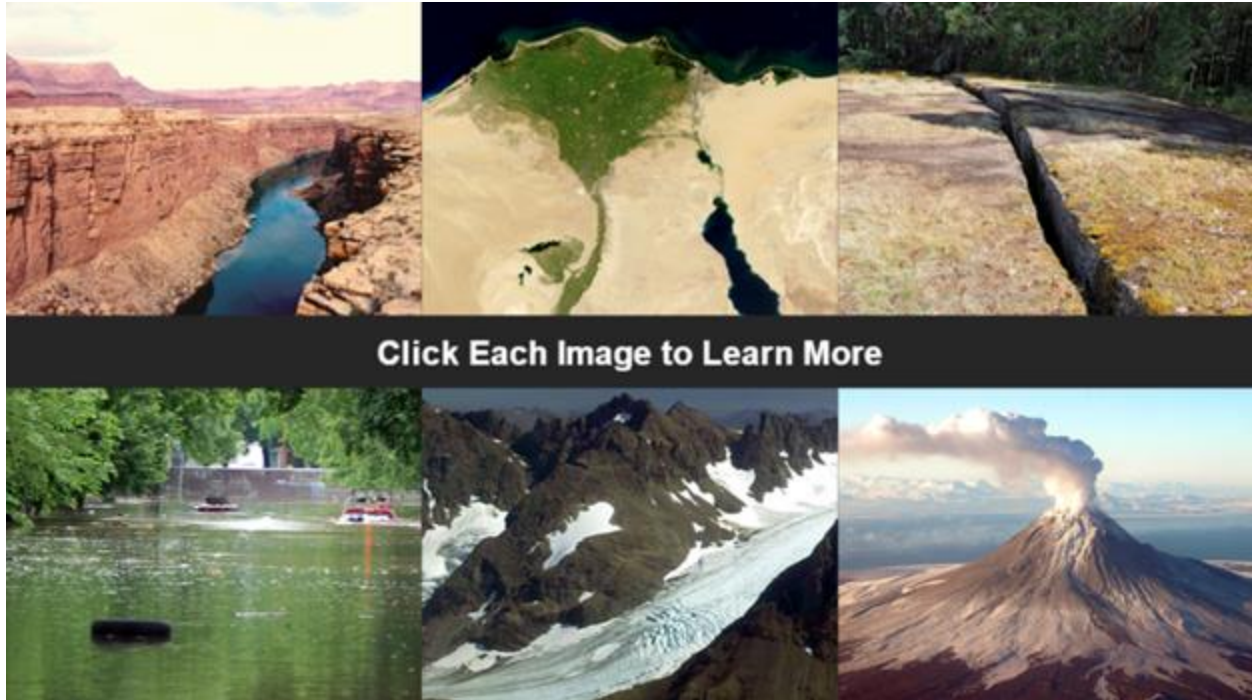


Click next to begin.

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Menu



There are several naturally occurring forces that continually shape the Earth's surface. Click each image to learn more.

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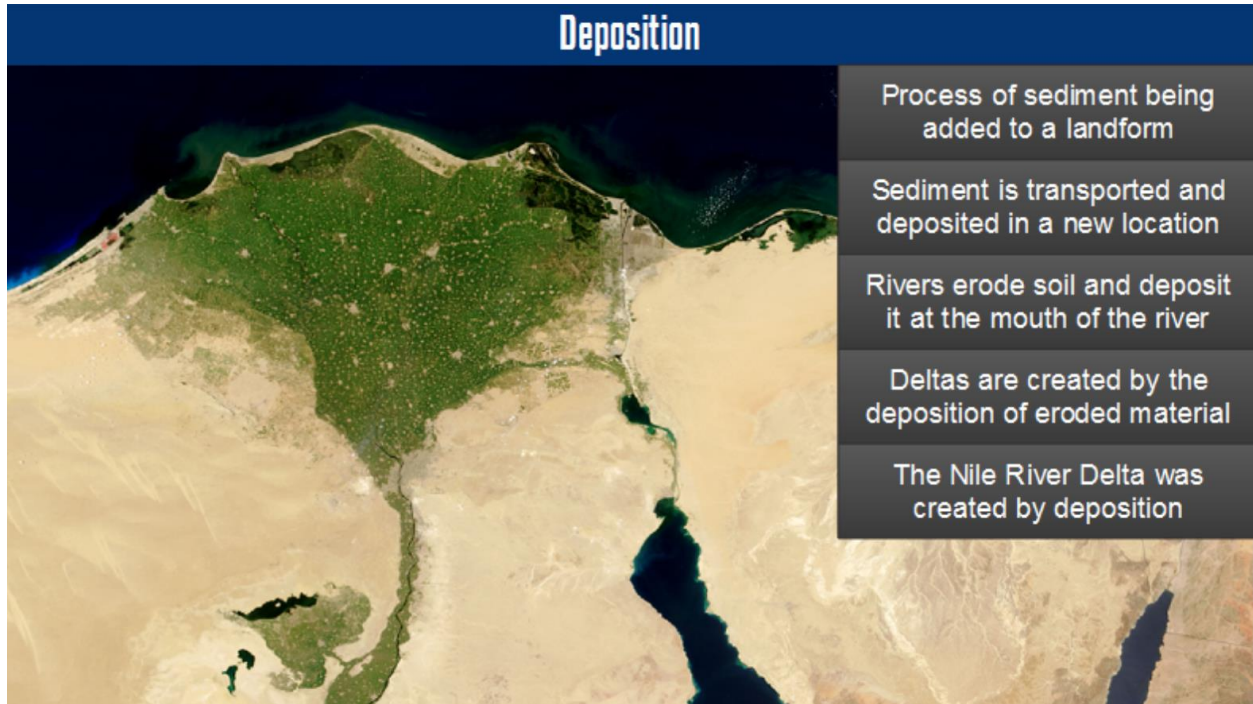
Erosion



Erosion is a term used to describe sand, soil, or rock being gradually worn away by forces like wind, water, or glaciers. Over time, these forces slowly break down landforms and transport the sediment to new locations. Erosion can actually create new landforms. For example, the Grand Canyon was created over millions of years by the Colorado River and its tributaries, which eroded sand and soil as they flowed through the area.

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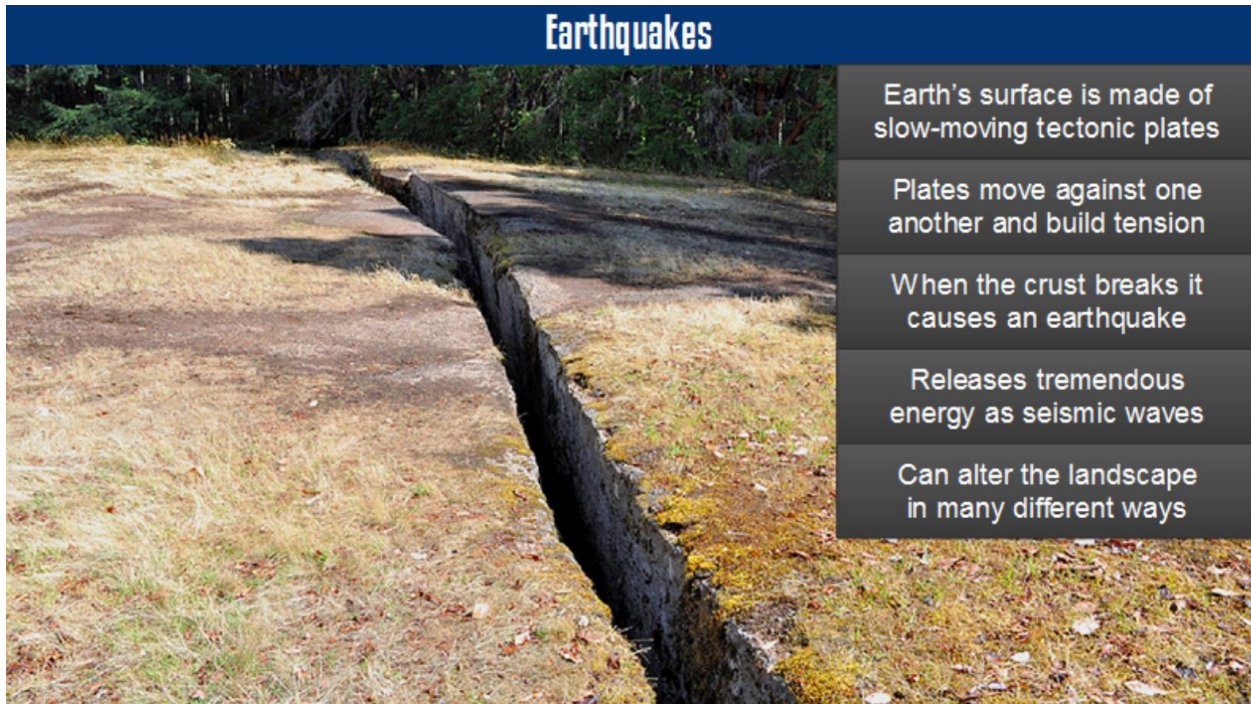
Deposition



Deposition describes the process of sediment being added to a landform. The forces of erosion create sediment, which is transported to and deposited in a new location. For example, a river may erode soil from its banks, which creates sediment that is later deposited at the mouth of the river. This sediment builds up over time, resulting in a landform known as a delta. In the Nile River Delta, the fertile, green area at the mouth of the river was created by the deposition of eroded material.

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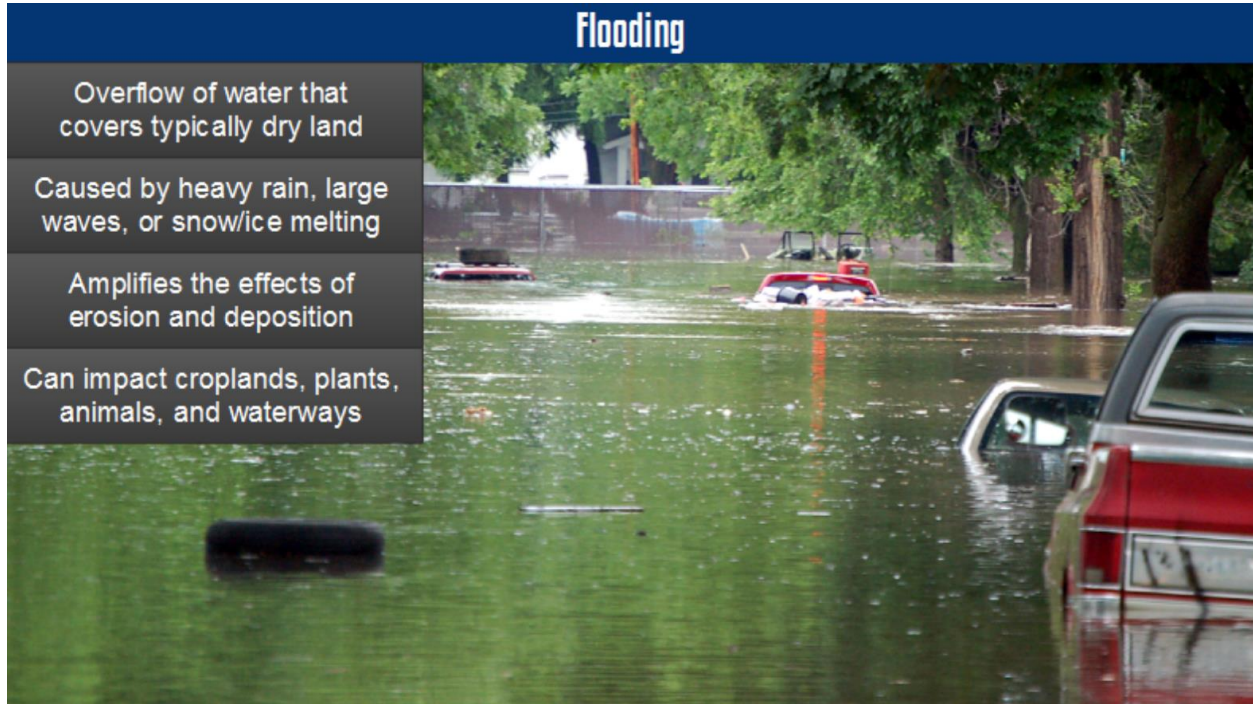
Earthquakes



The Earth's surface is comprised of several slow-moving tectonic plates. These plates are continually shifting, building up tension as the plate boundaries move against one another. This energy is released when the crust breaks along a fault, producing an earthquake. The resulting breakage produces a tremendous amount of energy in the form of seismic waves. These waves can cause ground rupture, landslides, avalanches, tsunamis, and flooding, all of which alter the landscape.

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Flooding



Flooding occurs when an overflow of water covers land that is typically dry. Floods can naturally occur due to heavy or persistent rain, large ocean waves, or snow and ice melting. The sudden influx of water can amplify the effects of erosion and deposition by moving more sediment or larger pieces of sediment at once. Floods can also change the composition of cropland, harm native plant and animal species, and contaminate waterways.

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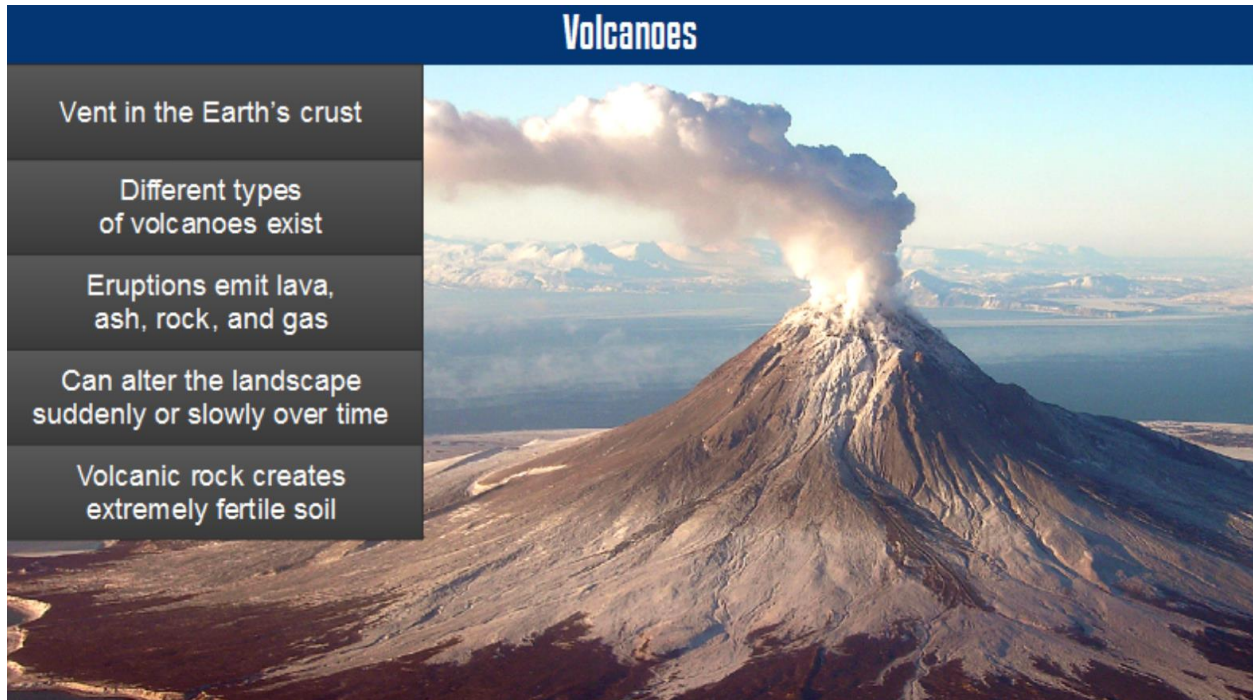
Glaciers

Glaciers	
	Impact landforms through soil deposition and erosion
	Glaciers shaped North America during last ice age
	Displace and deposit huge amounts of rock and soil
	Can create landforms like moraines
	Can create water features like lakes

Glaciers can significantly impact landforms through soil deposition and erosion. During the last ice age, massive glaciers slowly advanced across North America, acting like giant bulldozers. Huge amounts of rock and soil were displaced and deposited when the climate warmed and the glaciers receded. This created landforms known as moraines. New York's Long Island is an example of a moraine. Glaciers also cut deep basins into the ground, which filled with meltwater as the glaciers receded. This is how the North American Great Lakes were formed.

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Volcanoes



A volcano is a vent in the Earth's crust. Generally, people picture an exploding mountain with a crater on top; however, a volcano may be as simple as a rupture, or fissure, which emits volcanic material. A volcanic eruption emits lava, ash, rock, and gas. These eruptions can alter a landscape suddenly with a violent explosion, or slowly over time with a steady flow of lava. For example, when lava cools, nutrient-rich rocks are formed. When this volcanic rock is weathered, or broken down, it creates an extremely fertile soil that allows vegetation to thrive.