

Read About The Timescale of Earth's Events

WHEN DOES THE EARTH'S SURFACE CHANGE?

The Earth's surface is constantly changing. Some events cause fast changes like earthquakes and volcanic eruptions. Other changes can be very slow like erosion.

To better understand how the Earth's surface changes...

LET'S BREAK IT DOWN!

Volcanos change the Earth's surface very quickly.

When volcanoes erupt, hot lava is released from inside the Earth. As it cools and hardens, rock is formed and that can change the shape of the land.

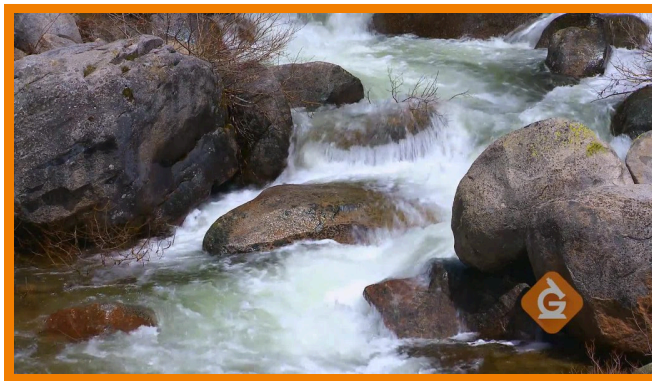


Earthquakes change Earth's surface in seconds.

Earthquakes cause the ground to crack. Sometimes roads are destroyed and even buildings can be damaged. These changes to the surface of the Earth happen fast.

Sometimes water changes the Earth's surface quickly.

During a landslide, water from heavy rain can cause land in certain places to slide down a hill. Hills that don't have any plants or trees are more likely to have a landslide.



Erosion can change Earth's surface very slowly.

Water erosion is when water slowly moves pieces of the Earth's surface from one place to another. Over many years, rough rocks can become smooth from the flowing water.

Glaciers change the Earth's surface very slowly.

Glaciers are huge pieces of ice that move very slowly. Glaciers are found in very cold places. They are so heavy that they can make big changes when they move.



Earth's Surface

The outermost layer of the Earth. We live on the Earth's surface.

Erosion

When tiny pieces of the Earth's surface are moved from one place to another. This usually happens due to wind or flowing water.

Timescale

How long it takes for something to happen. Some things happen in seconds like an earthquake and other things like erosion can take millions of years.

Volcano

A mountain-like structure that can erupt and lava can flow out of it.

Earthquake

A natural event that happens when the ground shakes.

Landslide

When land, mud and rocks slide down a slope.

QUESTIONS ABOUT EARTH'S EVENTS

How does an earthquake change the Earth's surface?

An earthquake can cause cracks in the Earth's surface. Roads can break into pieces and bridges can fall down.

How does a volcano change the Earth's surface?

Lava can flow down the sides of a volcano and spread over the land. It can even flow into the ocean. Once the lava cools it hardens into rock.

How would you describe a landslide?

A landslide is when heavy rain soaks into the Earth and causes the land to fall down because of gravity. If there are no plants to hold the soil in place, it is more likely to happen.

How does a rough rock become smooth?

Over very long periods of time weathering and erosion from wind or water can make a rough rock smooth.

How did the Grand Canyon form?

Over millions of years, the Colorado River has worn away rock to form the Grand Canyon. Even today, it continues to change very slowly. Wind has also helped form the Grand Canyon, but not as much as water.

How does a glacier change the land?

A glacier is a very slow-moving chunk of ice. Because it is so heavy, it changes the shape of the land as it slowly moves over it.
