Knowledge Organiser: Year 4 - Volcanoes, Mountains and Earthquakes

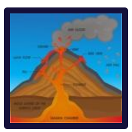
Careers connected to this unit: volcanologist, seismologist, geologist

Lesson Sequence

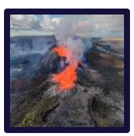
1. What are mountains?

2. What are earthquakes?

3. Do earthquakes still happen?



4. What are volcanoes?



5. Do volcanoes still erupt?

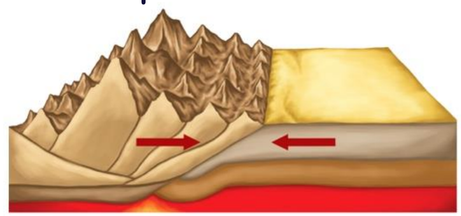
6. Assessment: Why do we have volcanoes, mountains and earthquakes?

Mountains

A mountain is a large, natural rise in the Earth's surface. A mountain range is a series of mountains connected in a line.

Mountains are formed by movements in the Earth's crust, particularly from tectonic plate collisions that push the land upwards.

Mountain ranges across the world include the Alps, Andes, Rockies and Himalayas.

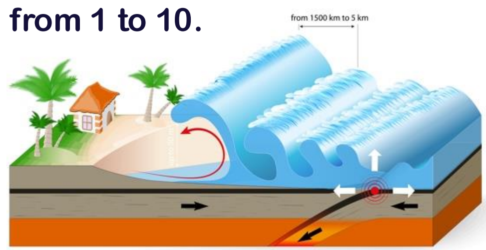


Earthquakes

An earthquake is a sudden shaking of the Earth's surface caused by the release of energy in the crust.

Earthquakes occur when stress builds up between tectonic plates, causing the crust to crack and release energy.

The Richter Scale measures earthquake magnitude, ranging from 1 to 10.



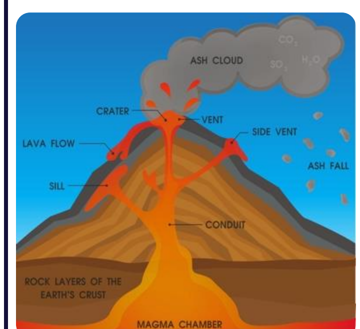
Regions near the tectonic plate boundaries are likely to experience earthquakes.

Volcanoes

A volcano is an opening in the Earth's crust that releases lava, ash and gases.

- Most volcanoes are found along tectonic plate boundaries.
- The Earth has four layers: the crust, mantle, outer core and inner core.
- The mantle is made of hot, slow-moving rock that can create magma.
- Volcanoes form when magma rises through cracks in the Earth's crust. When the pressure builds up, the magma erupts as lava.

Volcanoes can be active, dormant or inactive.



Volcanic soil is very fertile. Volcanoes can also create new islands and attract tourists.

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Rocket Words

mountain range	a large, natural rise in the Earth's surface, usually higher and steeper than a hill
earthquake	when the ground suddenly shakes because the Earth's outer layer, called the crust, moves
tectonic plates	huge pieces of the Earth's surface that fit together to cover the whole planet
plate boundary	where two of the Earth's tectonic places meet
volcano	an opening in the Earth's crust that sometimes shoots out lava
Earth's crust	the outermost layer of our planet; the hard, rocky surface we live on
seismic wave	an energy wave that moves through the ground during an earthquake
fault line	a crack in the Earth's surface where two pieces of land, or tectonic plates, meet