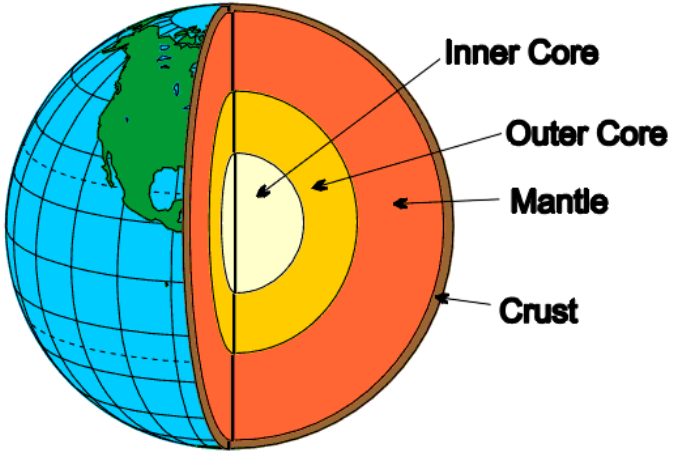




Extreme Earth



How are volcanoes formed?

1. Inside the earth, heat and pressure causes rock to melt and turn into liquid magma.
2. Magma rises from the magma chamber through cracks or weaknesses in the Earth's crust, towards the surface.
3. When this pressure is released, magma explodes to the surface causing a volcanic eruption.
4. The lava from the eruption cools to form new crust.
5. Over time, after several eruptions, the rock builds up and a volcano forms.

What causes an earthquake?

The Earth's crust and the top of the mantle is made up of about twenty tectonic plates, which are like jigsaw puzzle pieces covering the Earth. These plates are always moving and bumping into each other. We call the edges of the plates 'plate boundaries'. Plates do not always move smoothly alongside each other and sometimes get stuck. When this happens, pressure builds up. When this pressure is eventually released, an earthquake tends to occur.

Key vocabulary:

Volcano: A volcano is a rupture in the Earth's crust that allows hot lava, volcanic ash, and gases to escape from a magma chamber below the surface.

Magma: The extremely hot, molten rock layer that lies beneath the earth's crust.

Lava: Magma that has reached the surface and comes out of the volcano.

Ash: The bits of rock dust that are thrown into the air during volcanic activity.

Crater: The big hollow areas inside the volcano.

Eruption: The event where magma, from beneath the earth's crust, forces its way out, exploding upwards.

Tsunamis: a series of ocean waves which are caused when earthquakes or displace a large amount of water. Tsunamis are usually barely noticeable in water but get larger and more powerful as they approach land.

