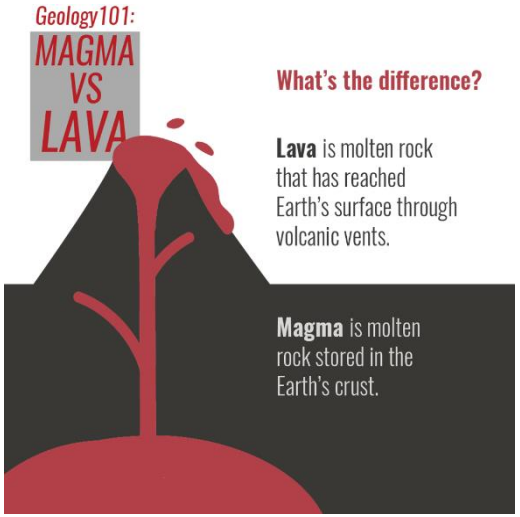
Extreme Earth

Vocabulary	
Earth's crust	The outer layer of the planet.
Mantle	A layer of rock below the crust that makes up 67% of the earth's mass.
Outer core	A fluid layer composed of mostly iron and nickel that lies above the inner core and below the mantle.
Inner core	Is the solid centre of the earth (around 750 miles thick); it is made mainly of iron.
Volcano	A mountain which has a crater or vent that allows lava, rock and gas to escape.
Magma	Molten (fluid) rock that is stored in the earth's crust.
Lava	Molten (fluid) rock that has reached the earth's surface through volcanic vents.
Eruption	When lava, rocks, dust and gas are ejected from a volcanic vent.
Active volcano	Has had at least one eruption during the past 10,000 years. An active volcano might be erupting or dormant.
Dormant	Is an active volcano that is not erupting, but is likely to erupt again in the future.
Extinct	Has not had an eruption for at least 10,000 years and is not expected to erupt again.
Tornado	A mobile, destructive vortex of rotating winds having the appearance of a funnel-shaped cloud beneath a large storm system.
Earthquake	A sudden violent shaking of the ground as a result of movements within the earth's crust (tectonic plates) or volcanic action.
Tsunami	A long, high sea wave caused by an earthquake or other disturbance.
Seismic waves	Waves of energy that travel through the Earth's layers, and are a result of earthquakes and volcanic eruptions.
Tectonic plate	The dozen or so plates that make up the surface of the Earth (see map).
Climate	The weather conditions that are typical to a particular area.

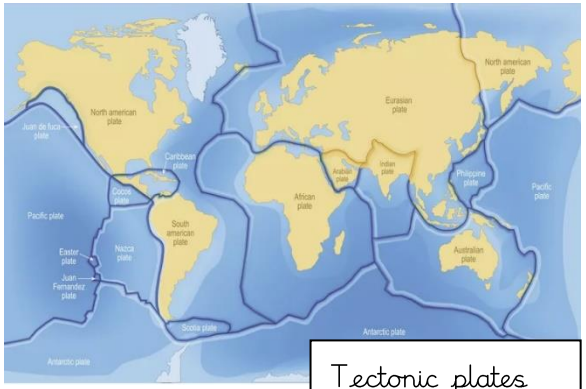


What causes a volcano to erupt?

Volcanoes erupt when one tectonic plate gets pushed down under another. Magma is lighter than rock and so it rises to the earth's surface. The magma creates gas bubbles which can't escape and the pressure builds which creates the volcanic explosion. Sometimes, water mixing with magma creates steam which can also lead to a volcanic eruption.

How do earthquakes happen?

Most earthquakes occur along the edge of the **oceanic** and **continental plates**. The earth's **crust** is made up of several pieces, called **plates**. The plates under the oceans are called oceanic plates and the rest are continental plates. The plates are moved around by the motion of a deeper part of the earth (the **mantle**). These plates are always bumping into each other or pulling / pushing away from each other. The plates usually move at about the same speed that your fingernails grow. Earthquakes usually occur when two plates collide.



Tectonic plates