

Vocabulary

Definition

active volcano

A volcano that is erupting now or is likely to erupt again.

bedrock

The solid rock found beneath the soil.

core

The very centre of the Earth, made of extremely hot metal.

crater

The bowl-shaped opening at the top of a volcano.

crust

The thin, rocky outer layer of the Earth where we live.

dormant volcano

A volcano that is "sleeping" and has not erupted for a long time but could erupt again.

epicentre

The point on the Earth's surface directly above where an earthquake begins.

eruption

When magma, ash and gases burst out of a volcano.

extinct volcano

A volcano that is not expected to erupt again.

magma

Melted rock found beneath the Earth's surface.

magma chamber

A large underground area where magma collects beneath a volcano.

main vent

The main passage that magma travels through to reach the surface.

magnitude

A measure of how powerful an earthquake is.

mantle

The thick layer of hot rock beneath the Earth's crust.

Mercalli scale

A scale that measures the effects of an earthquake based on what people observe.

Richter scale

A scale used to measure the strength (magnitude) of an earthquake.

shock wave

A wave of energy released during an earthquake.

tectonic plates

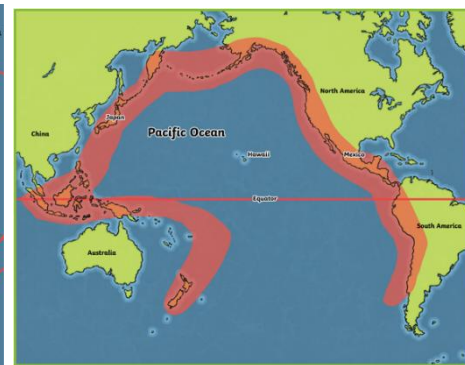
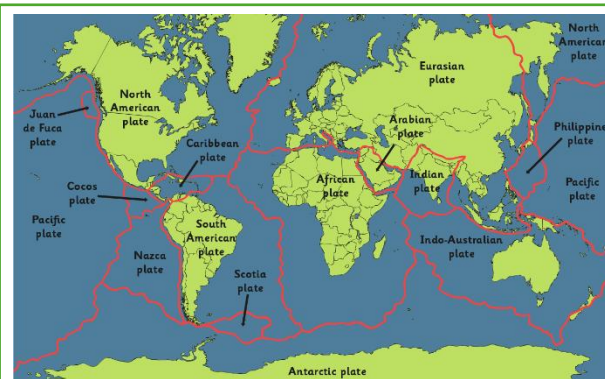
Huge pieces of the Earth's crust that slowly move.

tsunami

A series of huge ocean waves usually caused by an underwater earthquake.

volcano

An opening in the Earth's crust where magma, ash and gases escape.



Most volcanoes are located in the red area, which is named "Ring of Fire".

Why do you think it is called that?

The **crust** is the thin outer layer of cold, hard rock that covers the Earth. It is 10km-90km thick.



The **mantle** (extremely hot rock that often flows like treacle) is 3000km thick.

The **outer core** is mostly made up of iron, with some nickel. It is over 4000°C. It is mostly liquid with some rocky parts. The outer core moves around the inner core, creating the Earth's magnetism.

The **inner core**, which is made of iron and nickel, is the hottest layer of the Earth at over 5000°C. It melts the metals in the outer core to form magma.

The Earth's crust isn't one solid layer. It is broken up into huge areas called tectonic plates that float on top of the mantle.

This then affects the Earth's crust, so that magma can sometimes erupt through it.

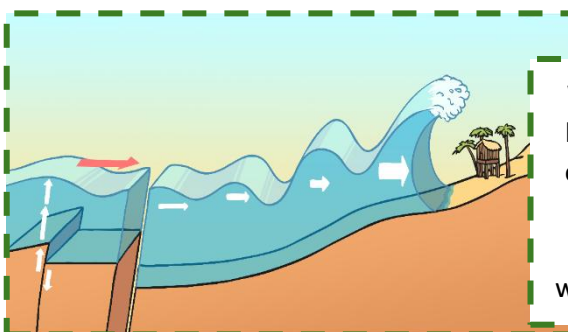
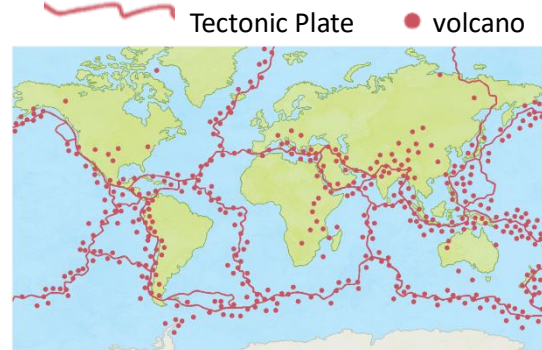


The lava and ash that has erupted through the crust build up to form the classic volcano cone shape over time.

Pressure builds up inside the Earth.

This process is happening all the time!

How can extreme natural disasters and weather affect the Earth?



When an earthquake happens beneath the ocean, it can displace huge amounts of water, creating giant waves called **tsunamis**.

The Earth's crust is broken into tectonic plates. When these plates move apart, collide or slide past each other, they can cause volcanoes and earthquakes.