



Geography focus	Volcanoes and Earthquakes	Year 4	Spring Term
-----------------	---------------------------	--------	-------------

## What? (Key knowledge)

### Earth's Layers

The Earth is made of 4 layers, starting at the centre is the inner core, then the outer core, followed by the mantle and around the outside is the crust.

### Volcanoes

#### Volcano formation

Magma rises through cracks or weaknesses in the Earth's crust, it then explodes to the surface causing a volcanic eruption. The lava from the eruption cools to form new crust and over time, after several eruptions, the rock builds up and a volcano forms.

#### Eruptions

Volcanic eruptions occur when magma from the earth's core rises to the surface.

#### Mount Vesuvius

Mount Vesuvius is an active volcano near Naples that is famous for its massive eruption in 79AD that destroyed the Roman city Pompeii.

#### Mount St Helens

This is an active stratovolcano in Washington, USA It's built up of layers of lava and ash.

### Earthquakes

#### Earthquake Causation

An earthquake is the shaking and vibration of the Earth's crust due to movement of the Earth's plates. Plates don't always move smoothly along each other and pressure builds up. Eventually this pressure is released causing an earthquake.

#### Tectonic plates

Earth's crust is made up of large, moving pieces called plates. All of Earth's land and water sit on these plates made of solid rock. Earthquakes and volcanoes occur at plate boundaries.

#### Measuring Earthquakes

Earthquakes have different magnitudes which are measured from the initial seismic wave. Scientists use the Richter scale to measure earthquake magnitude.

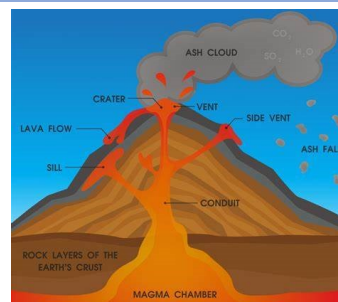
#### San Andreas Fault

The boundary between the Pacific plate and North American plate that runs through California. It is roughly 1200km long.

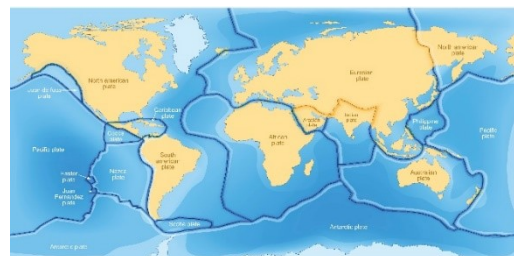
## What? (Key Vocabulary)

Lava	Hot, molten rock erupted from a volcano.
Magma	Hot fluid below the Earth's crust from which lava is formed on cooling
Active	A volcano that has erupted in the last 10,000 years
Dormant	An active volcano that is not erupting but could erupt.
Extinct	A volcano that has not erupted in the last 10,000 years.
Tectonic plates	Pieces of the Earth's crust that move. Earthquakes & volcanoes occur at their boundaries.
Richter scale	Scale used to measure the size of earthquakes.

## Diagrams and symbols



This diagram shows the inside of a volcano when it is erupting.



This diagram shows the location of Earth's tectonic plates.

## Possible experiences

- Create a model volcano that erupts.
- Use google earth to investigate the locations of Earth's tectonic plates