

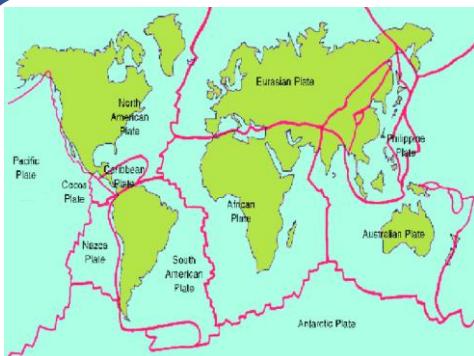


KEY KNOWLEDGE

The Earth has **four layers**. If you could peel back each layer, you would find the **outer crust that we live on, then the mantle, the outer core, and the inner core.**



Continental drift is the idea that the continents have not always been in the places they are right now, and they will all be in different places on the globe millions of years from now!



Tectonic plates



Earthquake damage

A **volcano** is a landform where molten rock erupts through the surface of the planet. **When pressure builds up, eruptions occur.** An erupting volcano can trigger tsunamis, flash floods, earthquakes, mudflows and rock falls.



Earthquakes are the shaking, rolling or sudden rumbling of the Earth's surface, usually at plate boundaries. Earthquakes can be felt over large areas, although they usually last less than one minute. Earthquakes cannot be predicted - but scientists are working on it.



Tsunamis are huge waves of water that are usually caused by earthquakes. An earthquake in the Indian Ocean off Indonesia in December 2004 caused a tsunami that killed over 200000 people in 14 countries.



KEY VOCABULARY

Crust

The outer layer of the earth. Made of rock. Between 5–10 km thick.

Mantle

Widest layer (2900km). Rock is in a liquid state in the form of magma.

Inner and outer core

The centre of the earth. Hottest temperatures – up to 6, 000C.

Constructive Plate Boundary

Plates are moving apart creating new crust, causing volcanoes and earthquakes.

Destructive Plate Boundary

Plates moving towards one another. Crust is destroyed. Volcanoes and earthquakes.

Conservative Plate Boundary

Plates sliding past one another. Earthquakes occur.

Volcano

An opening in the earth's crust through which lava, volcanic ash and gases escape.

Ash cloud

Small pieces of pulverised rock and glass which are thrown into the atmosphere.

Pyroclastic flow

A fast moving current of super-heated gas and ash (1000°C).

Earthquake

A sudden violent shaking of the ground, typically causing great destruction

Focus

The point at which the plate moves and the pressure is released.

Epicentre

The point directly above the focus, where the seismic waves reach first.

Seismic wave

Energy waves travel out from the focus.

Primary effect

These happen first when the ground shakes, or the volcano erupts.

Secondary effect

These happen because of the primary effects.



FURTHER READING

<https://www.geographyinthenews.org.uk/issues/issue-35/plate-tectonics-overview/ks3/>

<https://earthquake.usgs.gov/earthquakes/>

<https://www.natgeokids.com/uk/discover/geography/physical-geography/volcano-facts/>

<https://www.geographyinthenews.org.uk/issues/issue-36/prediction-planning-preparing-for-tectonic-hazards/ks3/>