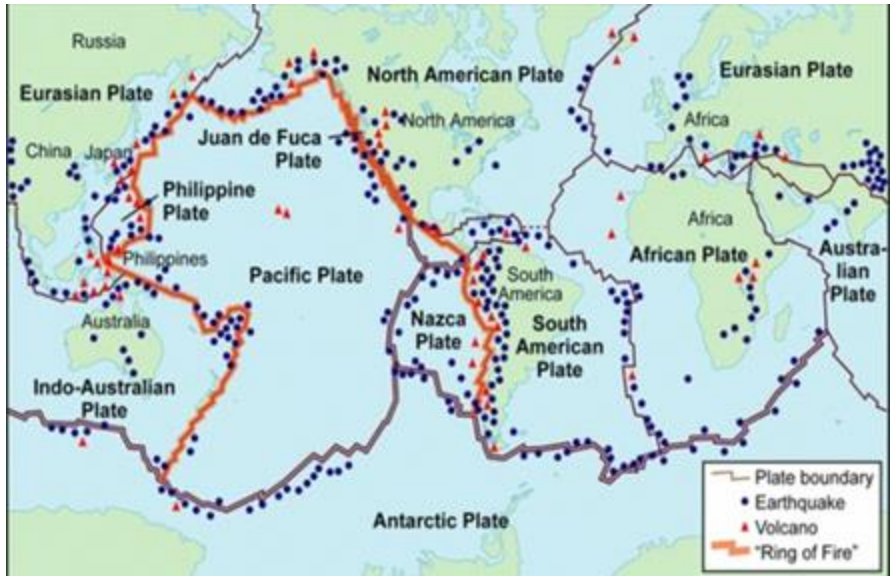
Geography Earthquake KO - Y8

Key term	Meaning
Tectonic plate	These are sections of the Earth the crust is divided into
Plate margin / boundary	The **edge** of a tectonic plate
Distribution	The way something is spread over an area
Anomaly	Something that doesn't fit the pattern
Seismic waves	A wave/ vibration of energy that travels through the Earth
Seismometer	Instrument used to measure the size of seismic waves
Magnitude	The **amount of** energy released from an earthquake, as measured by a seismometer
Intensity	The **amount of shaking felt at the surface of the Earth** during an earthquake
Richter Scale	**A scale from 1 to 9 that measures the magnitude of an earthquake.** Logarithmic means it increases 10 fold each time. A 2 on the Richter scale is 10 times as big as a 1. A 3 on the Richter scale is 100 times bigger than a 1, and so on
Epicentre	The centre of an earthquake at the Earth's surface
Focus	The centre of an earthquake BENEATH the Earth's surface
Fault	A crack / weakness
Retrofitting	Updating buildings to make them more earthquake proof
Primary impact	Impacts that happen as a direct result of an event e.g. fallen power cables during an earthquake
Secondary impact	Impacts that happen indirectly after the main event e.g. Power supplies cut off BECAUSE of fallen power cables

Checklist.			
I feel confident using the key terms in this unit			
I can identify the 4 key layers of the Earth			
I am able to describe the distribution of earthquakes around the world			
I can identify the three main plate boundaries, and how they are different			
I am able to identify the features of an earthquake			
I am able to explain how an earthquake is measured			
I can explain different primary and secondary impacts of tectonic hazards in developing and developed countries			

Distribution

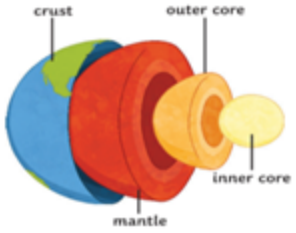


Most volcanic and earthquake activity is located along the edge of the tectonic plates (plate boundaries). This is shown on the map above. There are some exceptions to this where volcanoes are found away from the plate boundaries on HOTSPOTS e.g. The Hawaiian Islands in the Pacific Ocean

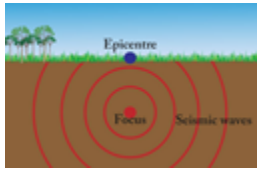
Structure of the Earth and features of an earthquake

The Earth is divided into 4 layers as shown in the diagram.

The mantle is the largest layer. It is made of molten rock which means it acts like a liquid. The crust is divided into tectonic plates and floats upon the mantle layer, moving slowly (around 3 - 12 cm a year).



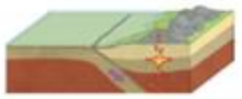
An earthquake will happen when the tectonic plates become stuck, creating tension that is suddenly released. The centre of this event beneath the Earth's surface is called the FOCUS, and the EPICENTRE is above, on the Earth's surface



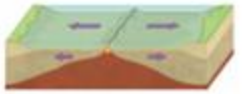
Three tectonic boundaries

There are different types of plate boundaries:

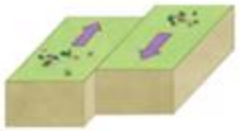
Destructive Margins
Where two plates move towards each other; the oceanic plate will be destroyed as it is forced beneath the continental plate, creating volcanoes and ocean trenches.



Constructive Margins
Where two plates move away from each other. Magma will create new crust.



Conservative Margins
Where two plates slide along each other. No crust is created or destroyed. This can cause earthquakes.



Primary Effects (Immediate Impacts)	Secondary Effects (Happen Afterwards)

Primary Effects of Earthquakes

- Buildings collapse.
- Roads, railways, bridges etc destroyed
- Water/gas pipes and electricity cables are damaged
- People are injured/killed

Secondary Effects of Earthquakes

- People are left homeless
- Damaged transport routes prevent aid reaching the area.
- Tsunamis and landslides (lahars) can be triggered
- Broken gas pipes cause fire
- The negative effects to businesses can cause unemployment/ poverty
- Lack of clean water/ medical care can cause disease and death