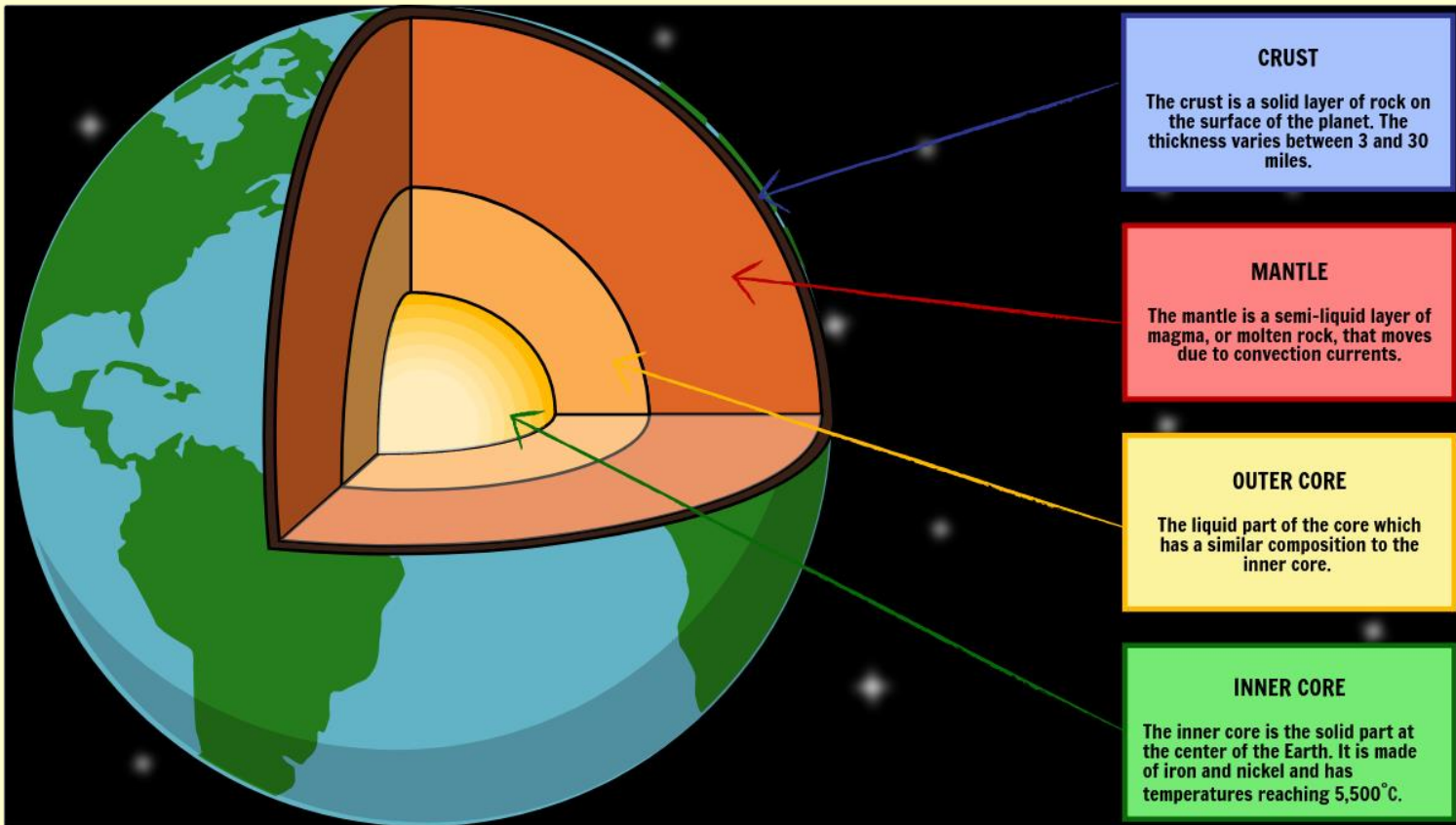
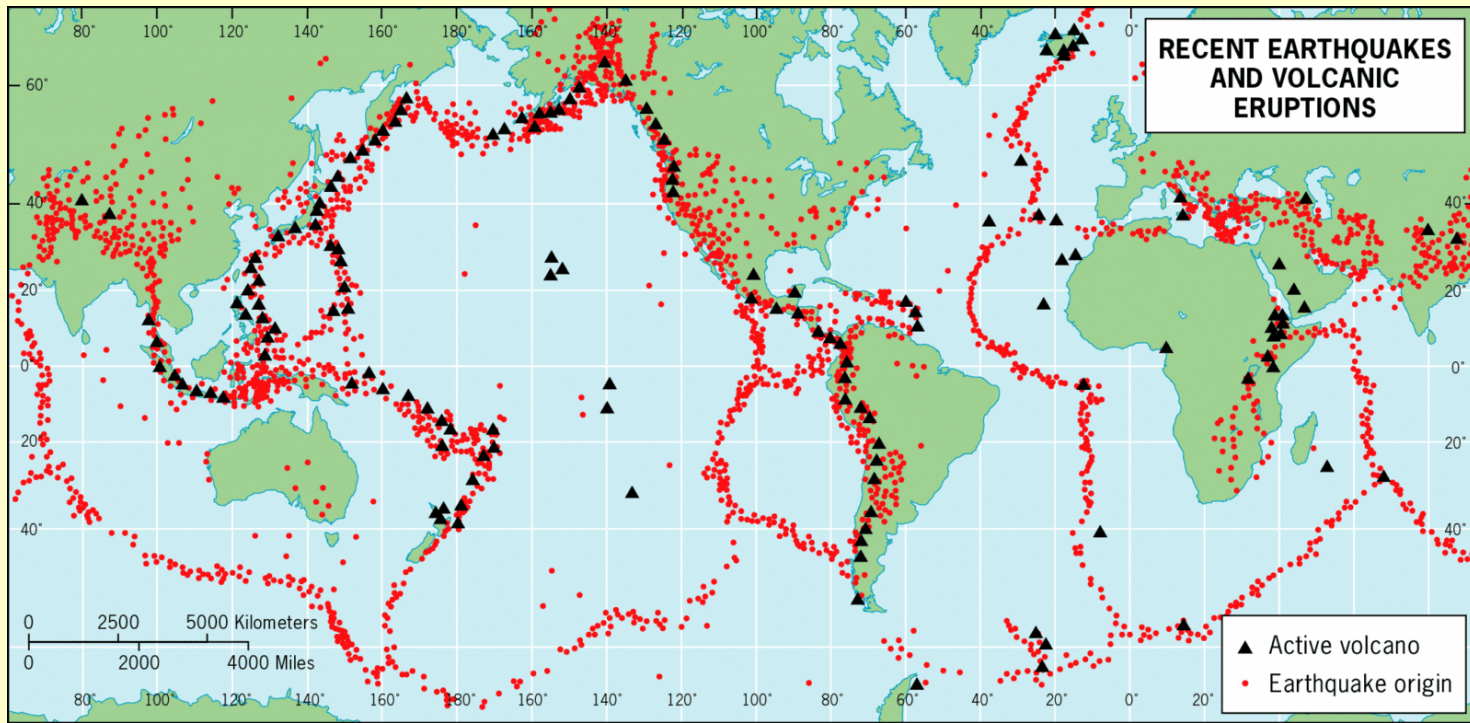


YEAR 8 KNOWLEDGE ORGANISER: What are the causes and effects of tectonic hazards?



The crust is made up of pieces called **plates**. There are two types of crust: oceanic and continental crust. The **oceanic** crust is found under the sea and is thinner and more **dense** than the **continental** crust.

Key Term	Meaning
Natural hazard	A natural event that has the potential to cause loss of life, injury, property damage etc.
Disaster	A natural event that causes loss of life, injury, property damage etc.
Tectonic hazard	Earthquakes, volcanic eruptions, tsunamis.
Causes	Things that make the hazard happen e.g. the movement of the tectonic plates/.
Effects	The impacts of the hazard e.g. number of deaths, costs of the damage, people being injured.
Responses	What is done to predict, prevent and tidy up after a hazard.
Primary effects	The things that happen straight away like a building collapsing.
Secondary effects	The knock on effects e.g. the earthquake causes a water pipe to crack and leak (primary effect). This leads to water becoming dirty and people become ill (secondary effect).
Immediate response	These are the things done in the days and weeks after the hazard event e.g. first aid, providing emergency food rations.
Long term response	These are the things done in the months and years after the hazard event e.g. rebuilding houses, improving emergency drills.



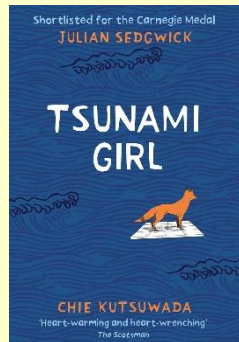
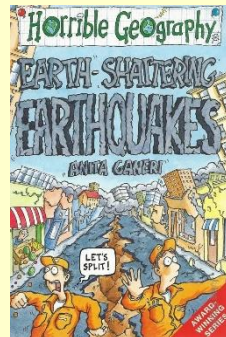
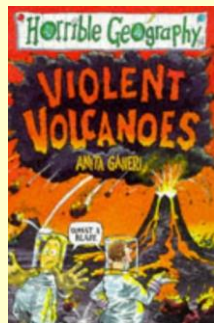
RECENT EARTHQUAKES AND VOLCANIC ERUPTIONS

▲ Active volcano
• Earthquake origin

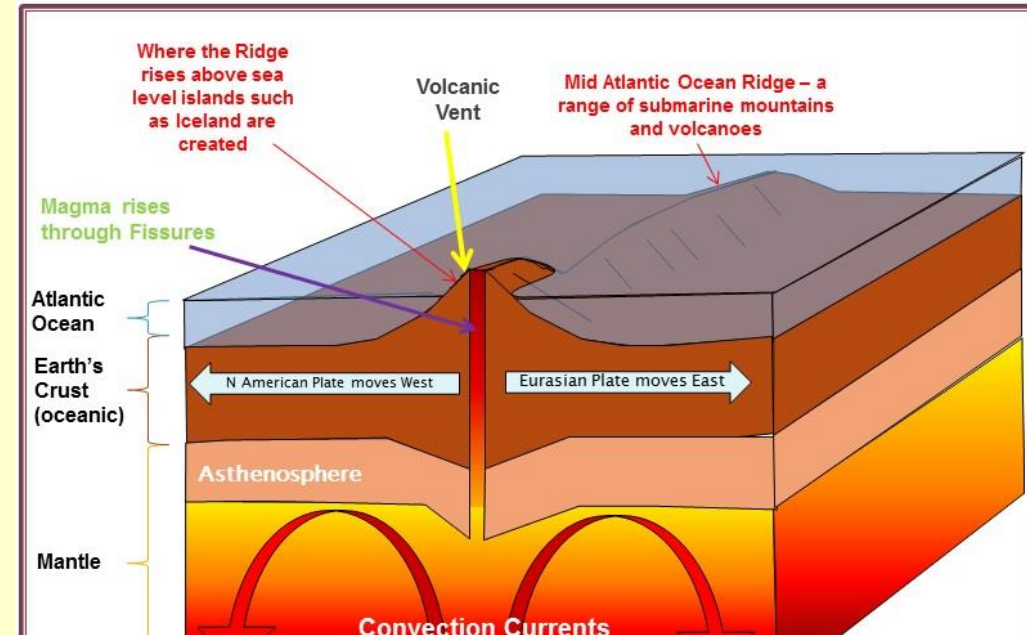
It was once believed that heat from the Earth's core caused **convection currents** in the mantle and that these currents slowly moved the crust around.

It is now thought that plate movement is driven by a mechanism called **slab pull**. Slab pull occurs where older, denser tectonic plates sink into the mantle. As these older sections of plates sink, newer and less dense sections of plate are pulled along behind. Sinking in one place leads to plates spreading apart in other places.

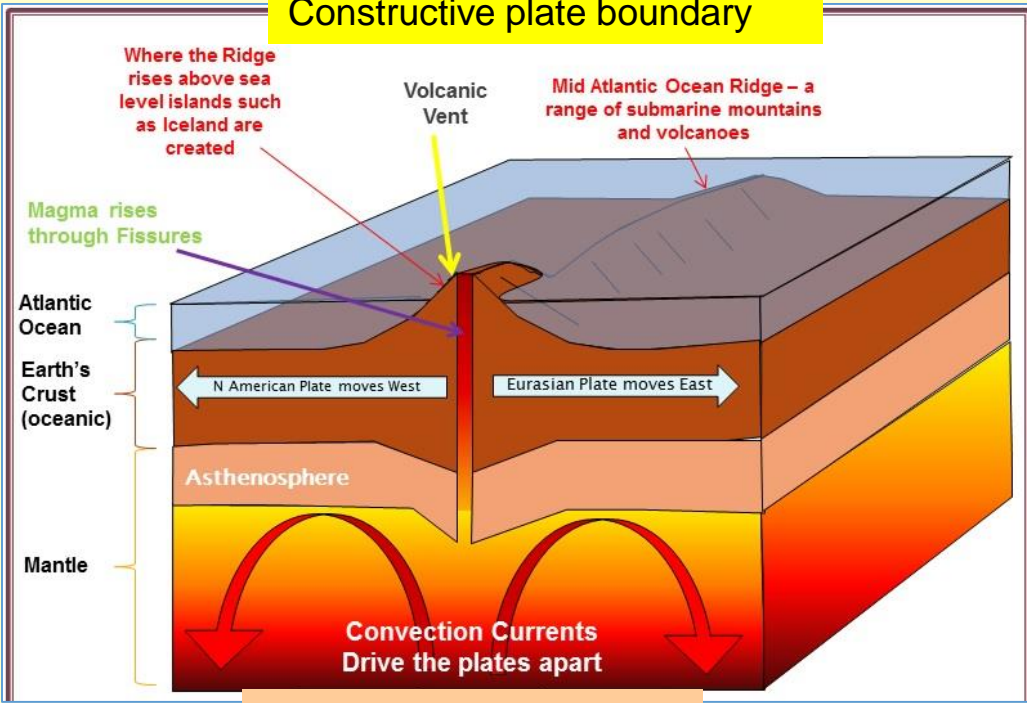
Most earthquakes and volcanoes are found at **plate boundaries**. The plates are like giant rafts that slowly move around. At the boundaries between plates, molten magma is able to force its way to the surface and escape as **lava**.



Suggested reading.

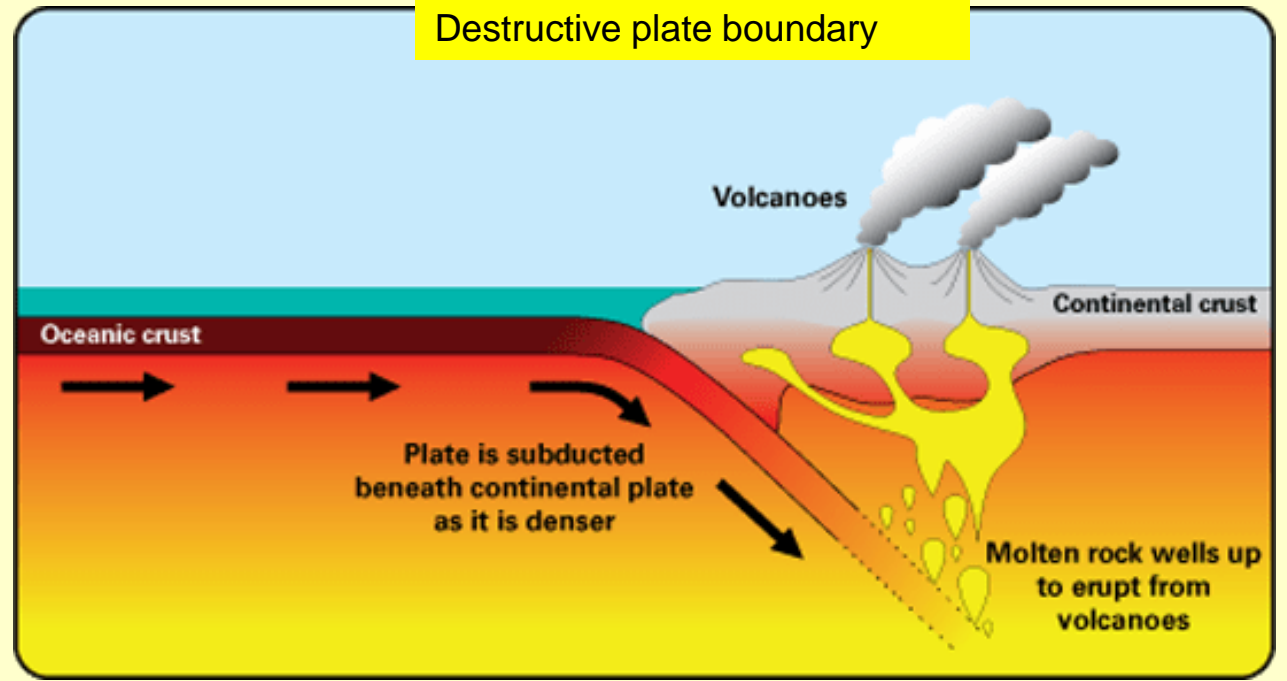


Constructive plate boundary



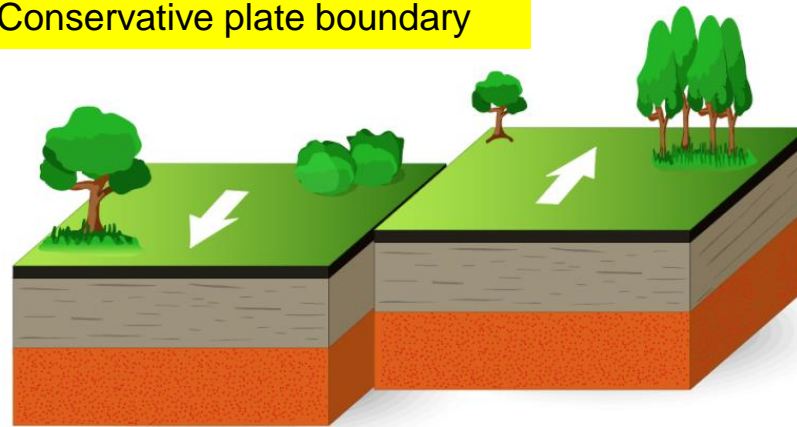
Two plates move apart

Destructive plate boundary



Two plates move towards each other

Conservative plate boundary



Two plates move alongside each other

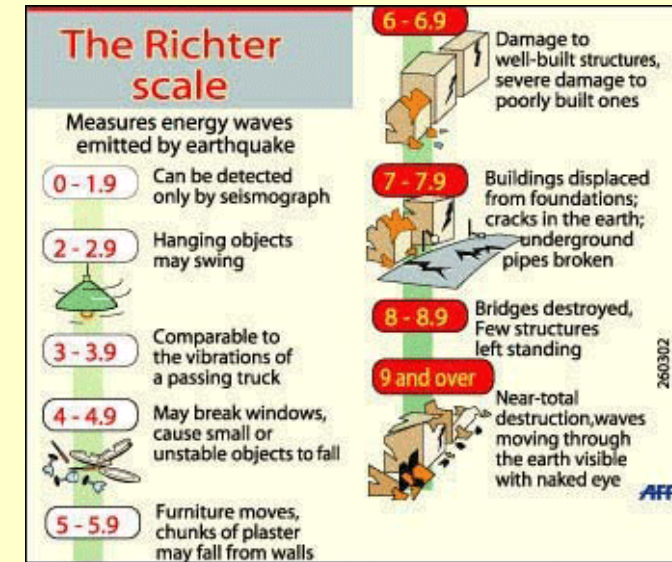


EARTHQUAKES



Earthquakes are measured using a seismometer.

The Richter scale is used to refer to the magnitude (size) of the earthquake



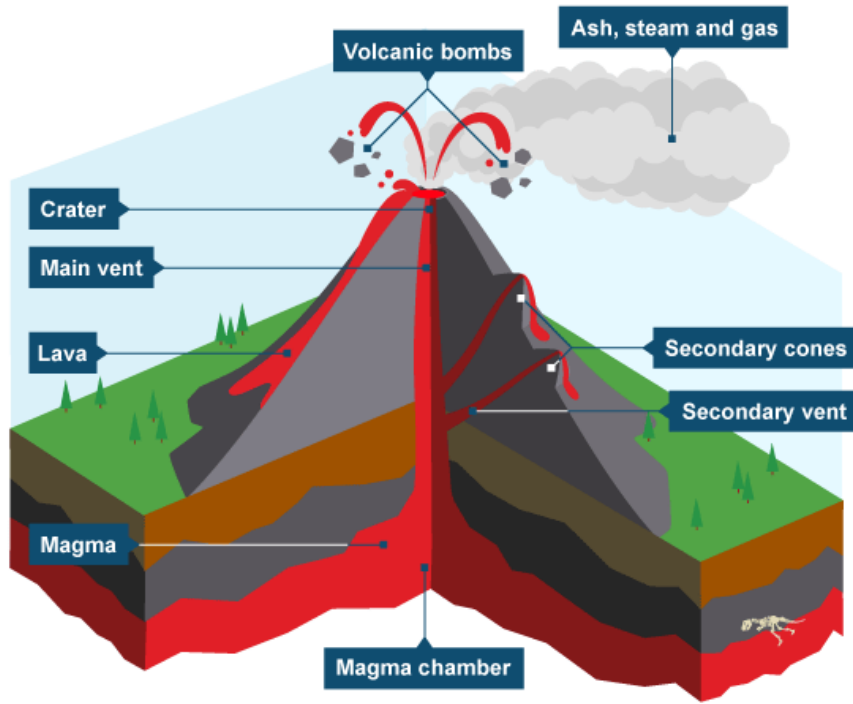
An earthquake is a sudden **shockwave** caused by rocks being under stress from the movements of plates at plate boundaries. Eventually the stress in the rock builds up enough to deform and reach breaking point. At that point, the stored up energy is released in the form of shockwaves.

Find out more at:

<https://earthquake.usgs.gov/learn/kids/>

VOLCANOES

<https://www.usgs.gov/faqs/how-do-volcanoes-erupt>



Types of volcano

There are two types of volcano, composite and shield.

Composite volcanoes are steep-sided and cone-shaped, made up of layers of ash and lava and containing sticky lava which doesn't flow very far.

Mount Etna in Italy is a composite volcano.

Shield volcanoes have gently sloping sides and runny lava that covers a wide area. Gases escape very easily from shield volcanoes.

Mauna Loa in Hawaii is a shield volcano.

Volcanoes can be **active** (erupting or showing signs of activity), **dormant** (have not erupted for a long time but still could) or **extinct** (no longer erupt).

Famous volcanoes include:

Vesuvius
Etna
Mount St Helens
Soufriere
Nyiragongo
Krakatoa
Mount Pinatubo
Eyjafjallajökull



Why do people live near to volcanoes?

- They create fertile soil.
- They give us minerals.
- They provide geothermal energy.
- They attract tourism.
- After people have survived one disaster they think they will be OK.
- No choice.