



A natural hazard is a natural process which could cause death, injury or disruption to humans, property and possessions.

Earth's structure and movement:

Structure - Crust, Mantle, Outer Core, Inner Core.

Convection Currents – magma in the mantle moving in a circular direction.

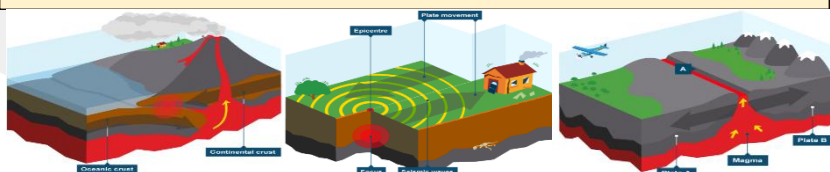
Plate margin/boundary – where two plates meet.

Conservative – two plates moving side by side.

Constructive – two plates move apart.

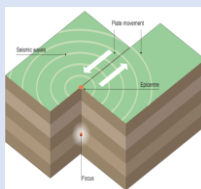
Destructive – the oceanic plate sinks beneath the continental plate.

Collision – two plates of similar density collide – make fold mountains.



Earthquakes are caused when two plates become locked causing friction to build up. From this stress, the pressure will eventually be released, triggering the plates to move into a new position. This movement causes energy in the form of seismic waves, to travel from the focus towards the epicentre. As a result, the crust vibrates triggering an earthquake.

- The point at which pressure is released
- is called the **FOCUS**.
- The point directly above the focus
- is called the **EPICENTRE**.
- **SEISMIC WAVES** (energy waves)
- travel out from the focus.



Case Study:

HIC – New Zealand: 14th November 2016

Causes: On a destructive plate boundary of the Indo-Australian and Pacific Plate. The magnitude 7.8 earthquake close to the town of Kaikōra in the Southern part of the Island.

Impacts:

- Two people died and 57 injured.
- State Highway 1 and railway lines blocked and damaged.
- Two homes collapsed.
- Services cut off e.g. electricity.
- Loss of income due to lack of tourism.
- 8ft Tsunami hit the east coast.

Responses:

- Evacuated all of Kaikōra.
- 12km of railway repaired.
- Tsunami warning so people could move to higher ground.
- The Royal New Zealand Air Force dispatched 5 helicopters to provide supplies and rescue people.

Case Study:

NEE – Turkey/Syria: 6th February 2023
4.17am local time.

Causes: On a conservative plate margin, involving the Arabian Plate sliding past the Anatolian Plate. .

The magnitude 7.8 earthquake, epicentre near the Turkish City of Gaziantep and 150miles north of the Syrian Border,

Impacts:

- Approx. 55,000 people died and 150,000 injured over Turkey and Syria.
- 18 million affected. Many emotionally affected.
- 50,000 buildings collapsed 10 million homeless.
- Rubble blocked roads and access restricted.
- Heavy rainfall leaves many sleeping in the streets with only access to contaminated water – leading to waterborne diseases and risk of hypothermia.
- Only 1 in 7 health centres even partially functioning.

Responses:

- Individuals tried to recover people.
- 105 countries and 16 international organisations pledged support.
- Heavily relied on **international aid**, e.g. from the USA and UK.
- Premier league donated £1 million to Disasters Emergency Committee.