Week 1.1

Why do tectonic plates move?

1. The earth is made up of four layers. The inner core, outer core, the mantle and the crust.
2. Convection currents are in the mantle layer.
3. When the magma in the mantle is near the outer core, it becomes very hot and so beings to rise.
4. Once it rises to just underneath the crust, it beings to cool down and then sinks.
5. This constant cycle of rising and sinking causes the manga to move in a circular motion. This causes the plates to move
6.

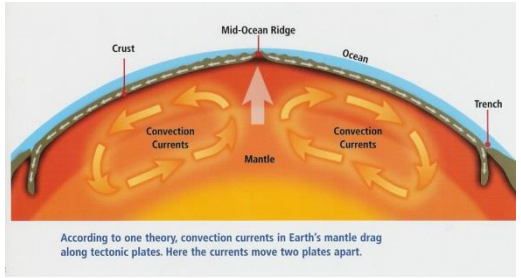
Week 1.2

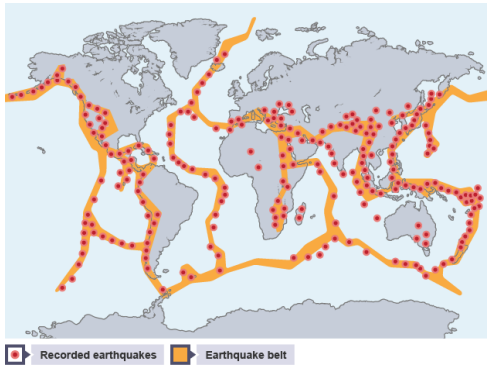
The earth's surface is made up of two types of crust:

Oceanic crust - found underneath the oceans. It is denser than continental crust and can be subducted.

Continental crust - found under land masses or continents. It is generally older than oceanic crust and is less often destroyed.

Earthquakes are found along all types of **plate margins** as shown on this map. Volcanoes however, only occur at constructive and destructive plate margins.





Week 1.3

Different types of plate boundaries

A **destructive plate margin** involves an **oceanic** plate and a **continental** plate. The plates move **towards** one another and this movement can cause earthquakes. As the plates collide, the oceanic plate is forced beneath the continental plate. The volcanic eruptions are often violent, with lots of steam, gas and ash.

At a **constructive plate margin** the plates move **apart** from one another. When this happens the magma from the mantle rises up to make (or construct) new land in the form of a **shield volcano**. The movement of the plates over the mantle can cause earthquakes.

At a **conservative plate margin**, the plates move past each other or are side by side moving at different speeds. As the plates move, friction occurs and plates become stuck. Pressure builds up because the plates are still trying to move. When the pressure is released, it sends out huge amounts of energy, causing an earthquake.

Week 1.4

HIC Case study- CHILE

Causes

On 27 February 2010 hit Chile. The earthquake occurred on a destructive plate margin.

Effects

500 dead. Most of Chile lost power. Cost $30 million. Coastal towns flooded by tsunami. There was a fire at a chemical plant- people have to be evacuated

Responses

Emergency services began to rescue people. Temporary repairs made to roads. 30,000 emergency shelters created. House building scheme ran.

Week 1.4

LIC Case Study- NEPAL

Causes

On 25 April 2015 a 7.8 earthquake struck Nepal in Asia. The earthquake occurred on a destructive plate margin.

Effects

Thousands of houses destroyed. 8,000 dead. Harvest from crops lost.. Tourism fell, so the country did not make any money. The earthquake created a avalanche, killing 20 that were climbing Everest.

Responses

Money was given from India and China- Over £1million given. The red cross was sent out to rescue those trapped. People are now educated about earthquakes- Drills are regularly carried out.

Week 1.5 Reducing the effects! Prediction, Protection and Preparation

Prediction involves using seismometers to monitor earth tremors. Experts know where earthquakes are likely to happen. However, it is very difficult to predict when they will happen.

Protection involves constructing buildings so that they are safe to live in and will not collapse. One example is rubber shock absorbers in the foundations to absorb the Earth tremors.

Preparation - In earthquake-prone countries, hospitals, emergency services and residents practise for an earthquake. They have drills in all public buildings so that people know what to do in the event of an earthquake. This helps to reduce the impact and increases their chance of survival.