Volcanoes and Earthquakes Knowledge Organiser

Vocabulary

Tectonic plate - the Earth's outer layer is made up of large, moving pieces of rock called Tectonic plates.
Crust - the outer layer of Earth, made out of rock.
Mantle - a layer of the earth made out of semi molten (melted) rock
Inner core - this is a huge metal ball which is made mainly from iron and has a temperature of 5000°C - 6000° C.
Outer core - this is a liquid layer of iron and nickel which flows around the centre of the Earth, creating its magnetic field.
Lava - molten rock that breaks through the Earth's surface.
Magma - molten rock that is underground.
Magma chamber - an area beneath the Earth's surface where magma collects in a pool.
Crater - a bowl shaped depression in the side or top of a volcano.
Cone - the shape that is made as the lava cools after it leaves the chamber.
Vent - where the lava and gases come out of the volcano.
Volcanic bombs - partly molten rock that comes out of the volcano during an eruption.
Ash - fragments of rock, mineral crystals, and volcanic glass.
Richter Scale - the way we measure how strong a volcano's eruption is.

Volcanoes

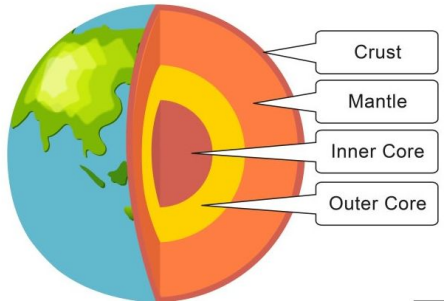
Volcanoes are made when pressure builds up inside the earth. This affects the earth's crust causing magma to sometimes erupt through it.

- Active volcanoes have erupted in the last 10,000 years.
- Dormant volcanoes haven't erupted in the last 10,000 years, but may erupt again.
- Extinct volcanoes aren't expected to erupt again.

Tectonic Plates

As the tectonic plates move, they interact at their boundaries in different ways. At one type of boundary the plates slide alongside each other. At another type, the plates crash into each other. In this case the edge of one plate may slide under another plate and be destroyed. Or the two edges of the plates may rise up and form **mountains**. At the third type of boundary the plates move apart from each other. When they do, the melted rock beneath the plates rises up. This melted rock, or magma, cools as it rises and forms new crust. **Earthquakes** and **volcanoes** often happen along plate boundaries. There are so many earthquakes and volcanoes at the edges of the Pacific Plate that this region is called the **Ring of Fire**.

Layers of the Earth



Earthquakes

Earthquakes are caused when the earth's tectonic plates suddenly move. Most earthquakes occur near the tectonic plate boundaries. Earthquakes can cause lots of damage to roads, buildings and property. The power of an earthquake is measured using the Richter Scale.