EXTREME EARTH

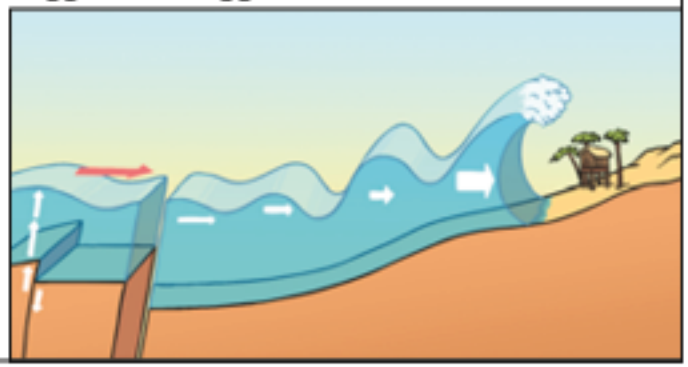
Prior learning: Describe and understand key aspects of: Physical geography, including: climate zones, biomes and vegetation belts (link to work on Rainforest).

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.

Tsunamis

- A tsunami is a giant wave caused by a huge earthquake under the ocean.
- The earthquake causes a large amount of water to be displaced very quickly causing a series of waves.
- As the waves travel through shallower water near land, they get bigger and bigger. The wave crashes onto the land causing devastation to buildings and sometimes even lives.



Tornadoes

- A tornado is a swirling funnel of air that forms when warm air rises from near the ground into big cumulonimbus clouds.
- There can be thunder and lightning at the same time.
- You can see tornadoes due to the dust and water droplets caught in the clouds.
- Storm chasers are film-makers and scientists who head towards the storms. They film the tornadoes and collect data about them.

- Most tornadoes happen in Tornado Alley in America – more than 500 each year.
- Tornadoes can happen in the UK but only around 30 per year.

Earthquakes

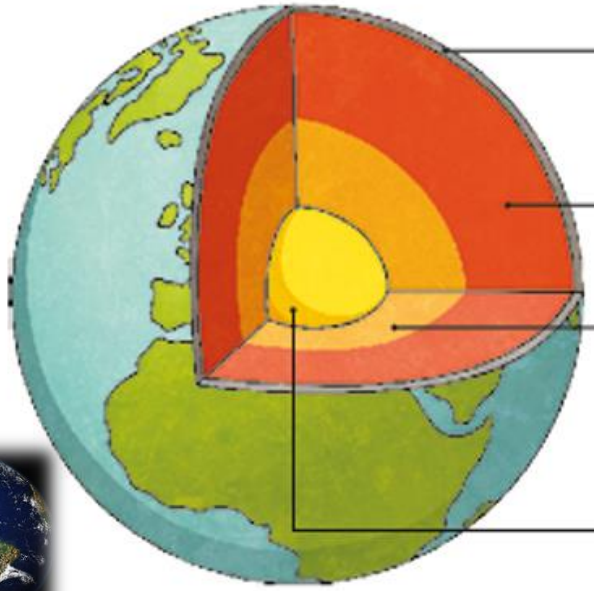
- Earthquakes are caused when the earth's tectonic plates suddenly move.
- Most earthquakes occur near the tectonic plate boundaries.
- Earthquakes can cause lots of damage to roads, buildings and property.


EXTREME EARTH


Key Vocabulary	
cumulonimbus cloud	Large thunderstorm clouds.
erupt	To suddenly burst out causing lava to explode out of the earth's surface.
fossils	The remains of plants or animals that lived a long time ago which can be found deep in the earth.
magma	Extremely hot, liquid rock.
tectonic plates	The earth's crust is made up of large areas called tectonic plates that join together.

Our learning: Explore the Earth's extreme climates by investigating what climates there are on our planet and finding out about the hottest, wettest, coldest and driest places on Earth. Find out about the water cycle and how it works to result in different levels of rainfall in different parts of the world. Investigate a variety of extreme weather phenomena, such as tropical storms, floods, lightning, hurricanes and tornadoes, and the effects these can have on people and the landscape.

Layers of Earth



Crust
Thin outer layer. Hard rock. 10km–90km thick.

Mantle
Extremely hot rock that flows. 3000km thick.

Outer core
Iron and nickel. Mostly liquid with some rocky parts. 4000°C.

Inner core
Iron and nickel. Hottest layer at over 5000°C.