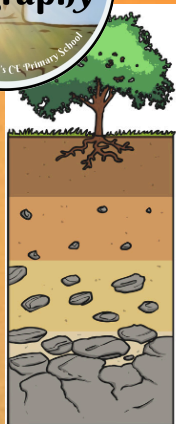


Year 3 - Extreme Earth - Term 2



Layers of Soil

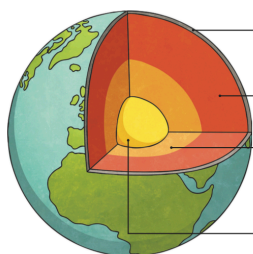
humus	Rotting dead leaves and animals.
topsoil	Plant's roots grow here. Very few rocks.
subsoil	Rocks and stones. Full of nutrients. Tree roots may reach. Fossils .
bedrock	A mass of rocks. Fossils .

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.



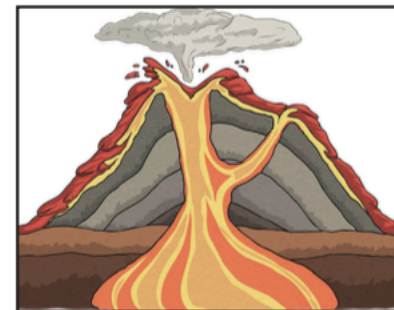
Layers of Earth



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.

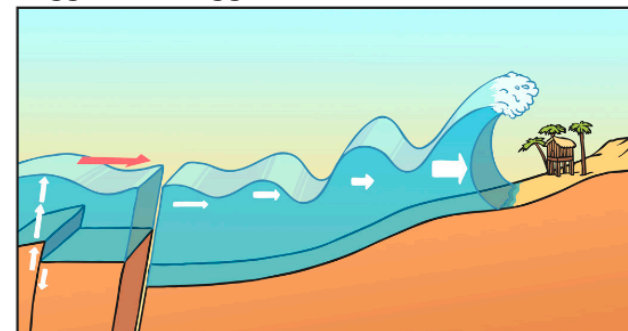
Volcanoes

- 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.



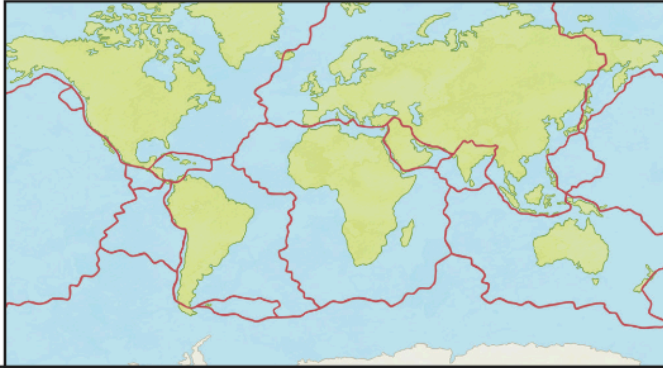
Tsunamis

- 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.



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.



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.

To know statements



I know the properties of the Earth's layers.	
I know how a volcano is formed.	
I know what happens when a volcano erupts.	
I know some risks and benefits of living near a volcano.	
I know why earthquakes occur.	
I know how tsunamis occur.	
I know how to keep safe in a tsunami.	
I know where tornadoes happen.	

What can you remember from previous units?

What do you already know about volcanoes, earthquakes, tsunamis and tornadoes?

Anything else you have learnt? What have you enjoyed?

