







Emerald Class

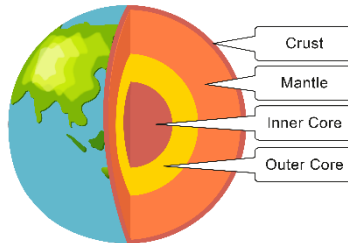
Topic: Why is the earth so angry? (Volcanoes, earthquakes, tsunamis and tornadoes)

Subject: Geography

Layers of Soil

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 .

Layers of the Earth



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.



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.



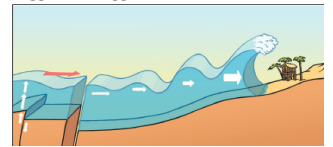
Earthquakes

- 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.



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.



Key Vocabulary

Tsunami- a long, high sea wave caused by an earthquake or other disturbance.
Dormant- temporarily inactive.
Tornado- a mobile, destructive vortex of violently rotating winds having the appearance of a funnel-shaped cloud and advancing beneath a large storm system.
Active- engaging or ready to engage.
Volcano- a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapour, and gas are or have been erupted from the earth's crust.
Drought- a period of time when an area or region experiences below-normal precipitation.
Earthquake- a sudden violent shaking of the ground, typically causing great destruction, as a result of movements within the earth's crust or volcanic action.
Tectonic plates- the large-scale motion of seven large plates and the movements of a larger number of smaller plates of Earth's lithosphere.
Blizzard- a severe snowstorm with high winds.
Humus- the organic component of soil, formed by the decomposition of leaves and other plant material by soil microorganisms.
Eruption- an act or instance of erupting.
Crust- the outermost solid shell of a rocky planet, dwarf planet, or natural satellite.
Lava- hot molten or semi-fluid rock erupted from a volcano or fissure, or solid rock resulting from cooling of this.

Key Vocabulary

Inner core- the innermost geologic layer of the planet Earth.
Extinct- not having erupted in recorded history.
Mantle- the region of the earth's interior between the crust and the core, believed to consist of hot, dense silicate rocks.
Outer core- a fluid layer about 2,400 km (1,500 mi) thick and composed of mostly iron and nickel that lies above Earth's solid **inner core**.
Layers- a sheet, quantity, or thickness of material, typically one of several, covering a surface or body.
Magnetism- one aspect of the combined electromagnetic force.
Pressure- continuous physical force exerted on or against an object by something in contact with it.
Crater- a large bowl-shaped cavity in the ground or on a celestial object, typically one caused by an explosion or the impact of a meteorite.
Conduit- a channel for conveying water or other fluid.
Magma- hot fluid or semi-fluid material below or within the earth's crust from which lava and other igneous rock is formed on cooling.
Bedrock- solid rock underlying loose deposits such as soil or alluvium.
Topsoil- the top layer of soil.
Subsoil- the soil lying immediately under the surface soil.