

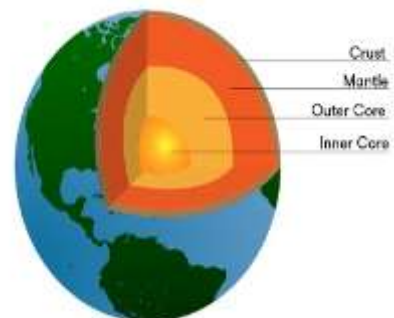


Key Vocabulary	
<b>Tectonic plates</b>	Segments of the rocky outer layer of the Earth. Plates can diverge, converge and transform.
<b>Active</b>	A volcano that has erupted recently and is expected to erupt again.
<b>Dormant</b>	A volcano that has not erupted for many years but could erupt again.
<b>Extinct</b>	A volcano that hasn't erupted in at least 10,000 years and scientists don't think will erupt again in a very long time.
<b>Magma</b>	Hot fluid or semi-fluid rock below the Earth's crust.
<b>Erupt</b>	To suddenly burst out causing lava to explode out of the Earth's crust.
<b>Geothermal energy</b>	A type of renewable energy taken from the Earth's core.
<b>Physical geography</b>	Geography that relates to the Earth's natural processes.

Powerful knowledge	
<ul style="list-style-type: none"> <li>The Earth has 4 layers – inner core, outer core, mantle and crust.</li> <li>Volcanoes are formed when pressure builds up inside the Earth due to tectonic plate movement. This affects the Earth's crust causing magma to sometimes erupt through it.</li> <li>Positive effects of volcanoes – Geothermal energy can be generated in areas where magma lies close to the surface. This is good for increasing renewable energy use. Ash ejected by the volcano acts as a good fertiliser for soils. Volcanoes attract many tourists, who enjoy the dramatic scenery that they produce. Rising magma brings valuable minerals to the surface, creating mining opportunities.</li> <li>Negative effects of volcanoes – Volcanoes are dangerous. They can kill people and damage property. Economic activity can suffer as it is hard for businesses to operate after an eruption. Habitats and landscapes are damaged by lava flows.</li> <li>Earthquakes are caused when the Earth's tectonic plates suddenly move and most earthquakes occur near the tectonic plate boundaries. Earthquakes can cause lots of damage to roads, buildings and property. Earthquakes are measured using the Richter scale.</li> <li>A tsunami is caused by the movement of tectonic plates and an 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 the shallower water near land, they get bigger and bigger. The waves crash onto the land causing devastation to buildings and sometimes even lives.</li> </ul>	

What I should already know
<ul style="list-style-type: none"> <li>Volcanoes can erupt.</li> </ul>
Learning Journey
<ul style="list-style-type: none"> <li>To describe what you find underground.</li> <li>To explain how volcanoes are formed.</li> <li>To understand how volcanoes can affect people's lives.</li> <li>To explain what causes earthquakes and how they are measured.</li> <li>To understand what causes tsunamis and how they can affect people's lives.</li> <li>To explain what causes tornadoes and how they can affect people's lives.</li> </ul>
NC coverage
<ul style="list-style-type: none"> <li>Ge2/1.3a-ii describe and understand key aspects of physical geography, including: volcanoes and earthquakes.</li> </ul>
Powerful knowledge
<ul style="list-style-type: none"> <li>Tornadoes are swirling funnels 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 as tornadoes. You can see tornadoes due to the dust and water droplets caught in the clouds. Tornadoes can happen in the UK, but only around 30 each year. The biggest tornado threat to human beings is from flying debris in the wind.</li> </ul>

Richter Magnitude	Earthquake effects
0-2	Not felt by people
2-3	Felt little by people
3-4	Ceiling lights swing
4-5	Walls crack
5-6	Furniture moves
6-7	Some buildings collapse
7-8	Many buildings destroyed
8-Up	Total destruction of buildings, bridges and roads



Skills: Research