



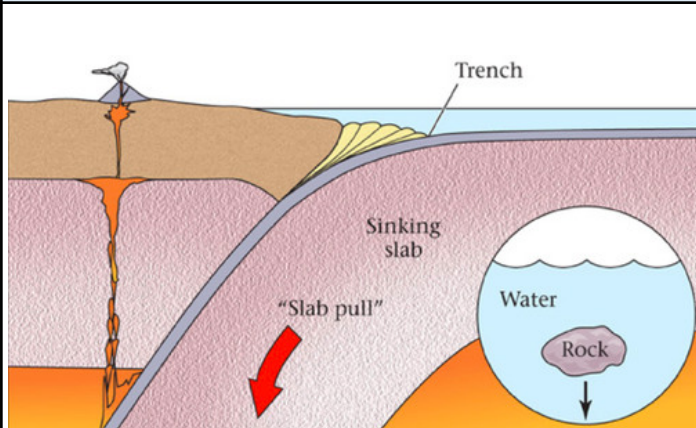
**What should I already know?**

- I can describe what volcanoes and earthquakes are.
- I have a knowledge of where places are in the world.
- I should be aware of the Earth's structure.

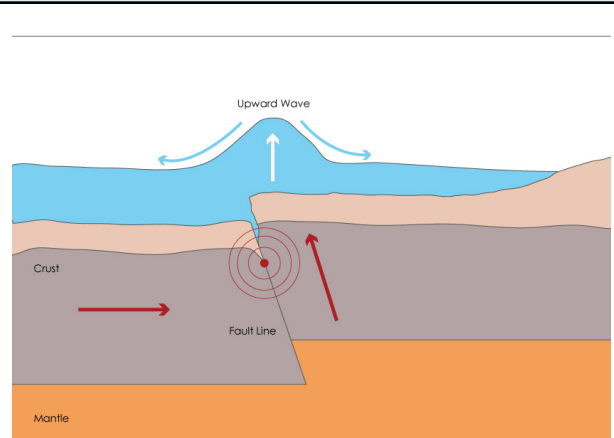
**Restless Earth: Big questions**

<p><b>What is the structure of the Earth?</b> In order for us to understand what happens on the surface we need to know what is underneath the surface.</p>	<p><b>What is slab pull theory?</b> Having learnt about plate boundaries we will study one more closely and explain how it works.</p>	<p><b>What are volcanoes?</b> Volcanoes are one of the two tectonic hazards caused by slab pull theory which we will study.</p>
<p><b>What are tsunamis?</b> This is our second tectonic hazard caused by slab pull theory.</p>	<p><b>Comparing Tsunami's: Boxing Day and Japan</b> This is our opportunity to investigate the causes, impacts and responses to two of the deadliest Tsunamis the world has seen.</p>	<p><b>How restless is our planet? - final assessment</b> In this final assessment we will create an infographic to demonstrate how restless the planet is.</p>

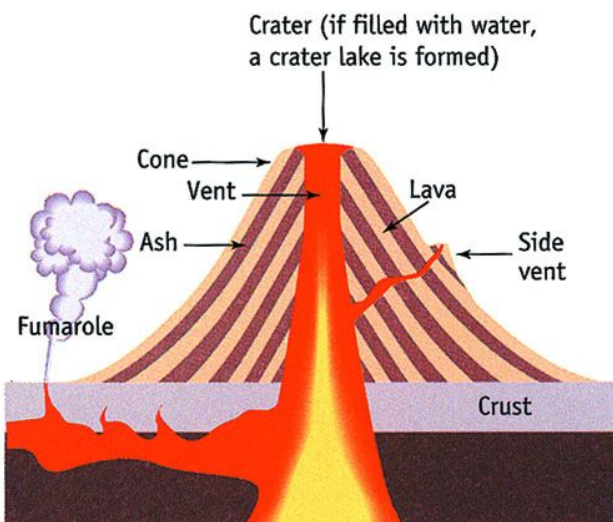
**Slab Pull diagram**



**Causes of a tsunami**



**Volcano structure**



**Ring of fire map**





**Case study: Boxing Day tsunami**



**Vocabulary**

Core	Central portion of the Earth made of a liquid outer and solid inner core.
Mantle	Makes up the majority of the earth's structure. It consists of super heated rock which can be liquid or solid.
Crust (lithosphere)	The outermost layer of the planet made of different types of rock.
Tectonic plates	Pieces of the lithosphere which float on the earth surface.
Convection current	Occur in the liquid mantle and act as conveyor belts for the tectonic plates.
Slab Pull	When a tectonic plate is driven by gravity into the mantle.
Magma	Liquid rock when it is below the earth's surface.
Constructive boundary	When two tectonic plates separate, creating new land. This usually occurs on the ocean floor.
Destructive boundary	When two plates collide and the heavier ocean plate is forced under the lighter continental plate.
Transform boundary	When two plates slide past each other.
Ocean ridge	When convection currents rise in the mantle beneath the oceanic crust and create magma where two tectonic plates meet at a divergent boundary.
Earthquake	The shaking and vibration of the Earth's crust due to movement of the Earth's plates
Volcano	An opening in Earth's crust that allows molten rock from beneath the crust to reach the surface.
Hot Spot	An area in the mantle from which heat rises as a thermal plume from deep in the Earth.
Tsunami	A series of waves caused by earthquakes or undersea volcanic eruptions.

**Lesson Overview**

'Plate Tectonics' - Iain Stewart  
 D.K Eyewitness: Volcano and Earthquake  
 Earth: Power of the Planet (David Cox)  
 Expedition Volcano (BBC)