Geography Knowledge Organiser

Year Group : 9
Topic: Extreme Earth
Half Term: Autumn One and Two

Suggested Reading

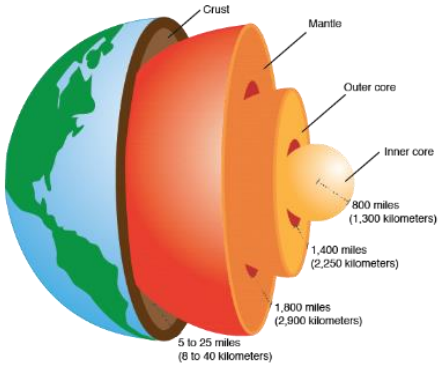
Shaken
Eric Walters

Escaping the Giant Wave
Peg Kehret

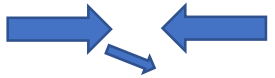
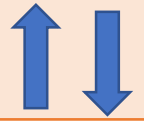
The Secrets of Vesuvius
Caroline Lawrence

Structure of the Earth

The Earth is made up of a series of layers



Case Studies
Earthquakes: Haiti 2009 & New Zealand 2011
Volcanos: Indonesia 2010 & Iceland 2010
Tsunami: Japan 2011

Boundary	Movement	Diagram	Features	Example
Collision	Two continental plates meet head on. Both plates are pushed upwards.		Earthquakes Fold Mountains NO Volcanoes	The Himalayas
Convergent	An oceanic and continental plate meet head on. The denser oceanic plate is subducted.		Volcanoes Earthquakes Ocean Trenches Fold Mountains	The Andes
Conservative	Two plates move past each other		Earthquakes NO Volcanoes	The North American and Pacific Plates
Divergent	Two plates move apart from each other		Volcanoes Small Earthquakes Ocean Ridges	Mid-Atlantic Ridge

Earthquakes: Earthquakes occur when there is a sudden release of pressure in the Earth's crust at the plates margins.

Fault: The 'crack' in the ground caused by the moving of plates

Epicentre: The point directly above the focus

Seismic Waves: Energy waves created by release of pressure at the focus

Focus: The point where the pressure is first released, generating the earthquake

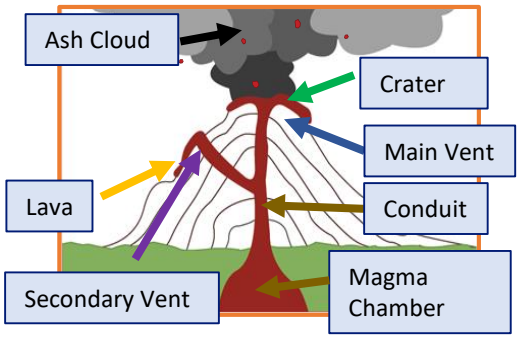
Seismometer: The equipment used for measuring the direction, intensity and duration of an earthquake

Tsunami: A tsunami is a large sea wave caused by the displacement of a large volume of water.

How a Tsunami occurs

1. The seabed is shaken by an earthquake
2. The seabed moves up and down, pushing the water up and creating a wave.
3. The wave travels outwards and gets bigger as water piles up behind it.
4. As the sea becomes shallower, the wave size increases.
5. Coastal areas are flooded as the wave surges inland.

Volcanoes: A volcano is formed when lave, ash and gases break through an opening in the earths surface



Hazards of a volcano: Pyroclastic Flows, Mudflows, Poisonous Gas, Lava Flows, Ash Cloud

Magma Chamber: a reservoir of magma within the earth's crust beneath a volcano

Main Vent: An opening in Earth's surface through which volcanic materials escape

Crater: Mouth of a volcano - surrounds a volcanic vent

Secondary Vent: A second smaller opening in Earth's surface through which volcanic materials escape

Conduit: An underground passage magma travels through