



# Extreme Earth



## Learning Aims

By the end of this unit we hope children can:

- Explain the key parts of a volcano and where they are commonly located
- Explain how a volcano erupts
- Describe the structure of the Earth
- Explain how an Earthquake occurs and how to keep safe during one.
- Describe a tsunami and the damage it can cause
- Explain how and where tornadoes happen



## Key Vocabulary

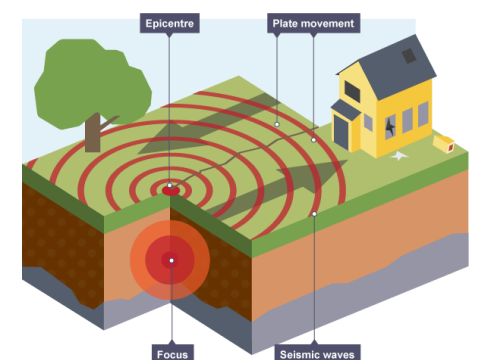
- **Active Volcano** - A volcano which has erupted recently and is due to erupt again.
- **Ash** - The soft grey or black flakes that are often found in the sky and on the ground after an eruption.
- **Core** - The hot centre of our Earth.
- **Crust** - The thin layer on the outside of the Earth, just below what we stand on.
- **Dormant Volcano** - An active volcano that has not erupted for a while but is due to erupt again.
- **Eruption** - An explosion of steam and lava from the volcano.
- **Epicentre** - The point on the Earth's surface where the earthquake is felt the strongest.
- **Extinct Volcano** - A volcano which is not going to erupt again.
- **Lava** - The molten liquid and cooled rock that often appears after a volcano erupts.
- **Magma** - The molten liquid that appears after a volcano erupts.
- **Mantle** - The layer of rock in the Earth between the crust and core
- **Richter Scale** - A measurement of an Earthquake's intensity.
- **Ring of Fire** - An area in the Pacific Ocean where volcanic eruptions and earthquakes often occur.
- **Seismic Waves** - The energy created by an earthquake travels in waves
- **Tectonic Plates** - Different pieces of the Earth's crust.

## Natural Disasters

Year 5  
Summer Term

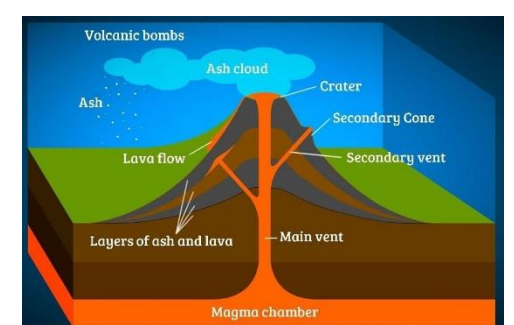
### Earthquake

An Earthquake is the sudden shaking of the Earth due to energy being released from the underneath the Earth's surface. The place where the tectonic plates move is the epicentre and often where the earthquake is felt strongest. The earthquake can then be felt radiating out to areas around the epicentre and can cause damage to surrounding buildings. Earthquakes do not often occur in the UK.



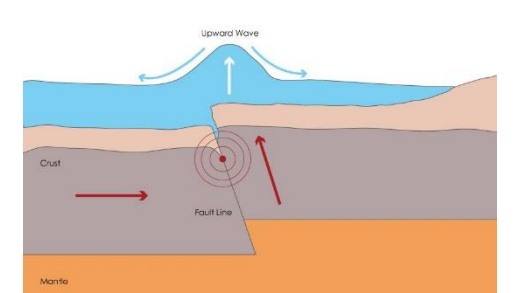
### Volcanic Eruption

Volcanoes form when the tectonic plates push together or pull apart. The magma then begins to rise to the surface of the volcano and when it reaches the surface we get a volcanic eruption. The magma flows out of the volcano and cools to form lava rock. Ash is also produced in a volcanic eruption.



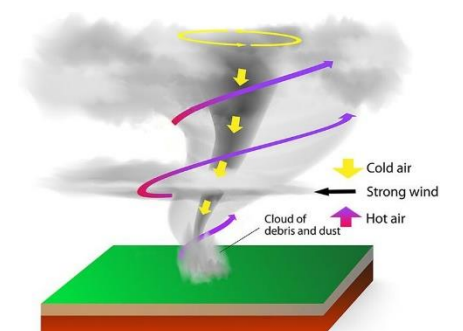
### Tsunami

A tsunami is caused by an underwater Earthquake or volcanic eruption. This causes the water to flow in a straight line - across a land mass rather than a wave moving in a circle and breaking when it reaches land. Sometimes the water flows away from beaches just before a tsunami hits and there can be more than one tsunami wave from an earthquake or volcanic eruption.



### Tornadoes

A tornado is a violent rotating column of air that forms as a result of a thunderstorm with wind speeds of up to 300mph. They destroy anything in their path. A tornado is formed by warm air meeting with cold air and a change of wind speed. This then forms the funnel shape cloud which is a tornado.



The children will use Now Press Play to experience what it would be like if one of these natural disasters took place. They will also learn the correct safety procedures should they find themselves in an earthquake.

