

## Geography: Extreme Earth - Thread: The Natural World

### Essential Question: Are earthquakes merely a physical phenomena?



What I should already know: I understand the dangers of extreme weather. I know about the three types of rock (igneous, sedimentary and metamorphic) and how each are formed.

#### Enquiry Questions:

- How are volcanoes formed and what happens when they erupt?
- What causes earthquakes and how are they measured?
- Which areas were affected by the recent earthquake and how are people helping?
- What causes tsunamis?
- Which was more severe: the Turkey/Syria earthquake of 2023 or the Indian Ocean tsunami of 2004?

#### Key Vocabulary

Active - A volcano which is either erupting or is likely to erupt in the future.

Aid organisation - An organisation that provides money or assistance to people who have been affected by natural disaster, war or other circumstances that prevent them from being able to help themselves.

Crater - A hollow area, shaped like the inside of a bowl, found at the mouth of a volcano.

Dormant - A volcano that has not erupted in a long time but there is the possibility that it could erupt in the future.

Earthquake - A shaking or other movement of part of the earth's surface, caused by movement deep within the earth.

Epicentre - The point on the earth's surface directly above the central source of an earthquake.

Eruption - When a volcano breaks open, sending out hot melted rock and ash.

Extinct - A volcano that is not expected to erupt again in the future.

Fault lines - Places where tectonic plates meet together.

Human Geography - the branch of geography that studies how people and the environment have an effect on each other.

Magma - Hot, liquid matter beneath the earth's surface that cools to form igneous rock. Magma that reaches the earth's surface, as when a volcano erupts, is called lava.

Magma chamber - Part of a volcano where the molten rock is stored beneath the ground

Magnitude - The size or extent of an earthquake.

Main vent - The channel inside a volcano through which magma travels to reach the earth's surface.

Mercalli scale - A 12-point scale for describing the intensity of earthquakes.

Natural disaster - Disasters caused by nature, such as tornadoes, earthquakes and tsunamis.

Physical Geography - The branch of geography dealing with natural features (not man-made)

Richter scale - A numerical system used to measure the magnitude of an earthquake.

Shock wave - An area of very high pressure moving through the air, earth or water, caused by an explosion or earthquake.

Tectonic plates - Rocky sections of the earth's crust, which fit together like a puzzle.

Tsunami - A very large, often destructive, sea wave that is caused by an earthquake or explosion of a volcano under the ocean.

Volcano - An opening in the earth's crust through which melted rock, ash and gases are forced out, or a mountain or hill made from melted rock that builds up around such an opening.

#### Geographical Skills

Pupils will:

#### Locational Knowledge

- Locate the world's countries, using maps to focus on Europe.

#### Place Knowledge

- Understand geographical similarities and differences through the study of human and physical geography of a region in a European country.

#### Human and Physical Geography

- Describe and understand key aspects of physical geography, including volcanoes and earthquakes
- Human geography including types of settlement and land use due to displacement e.g. undercovered markets being used as emergency shelter.

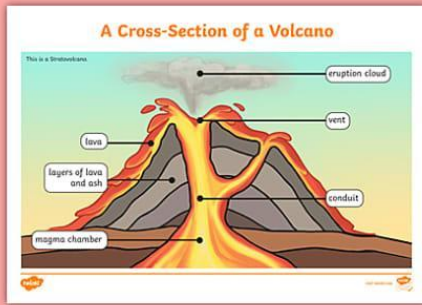
#### Geographical Skills and Fieldwork

- Use maps, atlases, globes and digital/computer mapping to locate countries and to describe features studied.

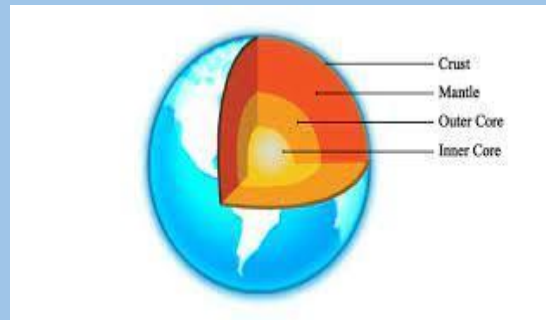
Ask geographical questions

Conduct geographical research

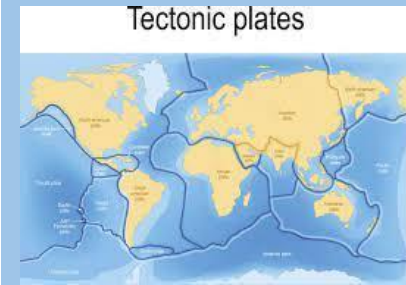
Maps and Images



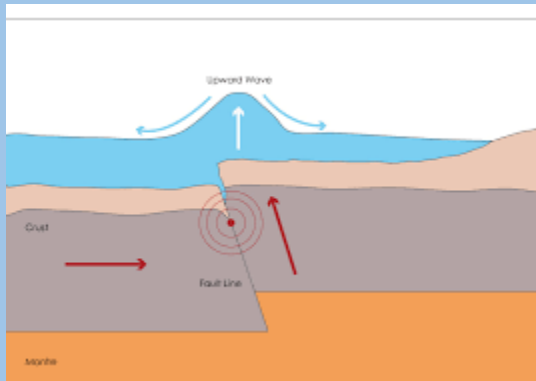
A diagram showing the different parts of a volcano.



The layers of the earth.



A map showing the world's tectonic plate boundaries



A diagram showing how a tsunami happens.



Devastation caused by the recent earthquake in Turkey and Syria



The aftermath of the Indian Ocean tsunami of 2004.

Links to other curriculum areas: Literacy – Kensuke's Kingdom; Art – Hokusai (The Great Wave off Kanagawa); DT – Building a structure to survive an earthquake.