Year 5/6 Geography: Why do people live near volcanoes and known earthquake zones?

EQ: Where in the world are many volcanoes and earthquakes?

Earth's crust: The outer layer of our planet.

The crust is made up of sections called **tectonic plates** which fit together like a puzzle.



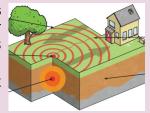
- The Earth's crust is spilt into tectonic plates.
- Earthquakes and volcanoes often occur where plates meet.
- The 'Ring of fire', which is around the Pacific plate, has many volcanoes and earthquakes.





EQ: What is an earthquake and what causes one?

- Earthquakes are caused by **tectonic plates** moving against each other.
- This sends shockwaves through the Earth's crust which is what causes the ground to shake.
- The pressure can crack the Earth's crust.



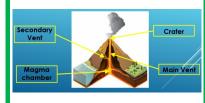
Epicentre: The point on the Earth's surface, directly above the focus of an earthquake.

Shockwaves: Waves of movement caused by an earthquake.



EQ: What is a volcano and what causes it to erupt?

- 1. Volcanoes usually form where tectonic plates move towards or away from each other.
- 2. Magma is pushed up towards the Earth's surface.
- 3. Pressure builds up in the magma chamber.
- 4. Magma is eventually pushed up through the main vent.
- 5. Gases and ash are released into the atmosphere. Lava runs down the mountainside.



A **volcano** is an opening in the Earth's crust.

They are often mountain or hill-shaped.

EQ: What are the advantages of living near volcanoes?



Active volcanoes: are currently erupting or highly likely to erupt. **Dormant volcanoes:** have not erupted for a long time but may erupt again in the future.

Extinct volcanoes: have not erupted for a very long time and are unlikely to erupt again in the future.

Advantages

- 1. Fertile soil nutrients in the ash from eruptions enable crops to grow.
- 2. Tourism volcanoes attract visitors to the area,
- 3. **Geothermal energy** provides a clean renewable energy source.

EQ: What are the disadvantages of living near volcanoes and earthquake zones?

The main disadvantage is the **destruction** caused by both volcanoes and earthquakes.

Volcanoes

- Lava flow covering buildings and farmland.
- Poisonous gases released into the air.
- Disruption to air travel due to the ash cloud.
- Mudslides and rockfall damage the area around the volcano.

Earthquakes

- Collapsed buildings
- Damaged infrastructure (roads, trainlines, electricity and water supplies)
- Tsunamis
- Flooding and fires

The damage caused by earthquakes and volcanoes causes death, loss of homes and jobs. The cost of rebuilding and repairing is huge.