

8.2 CAN TECTONICALLY ACTIVE PLACES BE SAFE?



INTENT– In this unit you will develop your knowledge of the lithosphere and examine the physical processes that create volcanoes and earthquakes. You will study the hazards that arise from earthquakes and volcanic eruptions and explain how these can impact on people and property. You will assess the factors which affect the impact of these hazards. Finally, you will look at how people can learnt to live in these hazardous environments.

Builds on – Y7 – geological time, rocks and landscapes



Feedforward – GCSE – hazardous earth

KEY LOCATIONS



Global Scale –
distribution of
earthquakes
and volcanoes



National Scale –
examples of
disasters



Local Scale -

KEY KNOWLEDGE

- The earth has a layered internal structure.
- The layers have different physical compositions and therefore characteristics.
- The earth's crust is divided into different tectonic plates which move over time.
- The plates move due to convection currents in the mantle.
- The movement of the plates leads to earthquakes and volcanoes.
- Earthquakes and volcanoes pose hazards for people and lead to a range of impacts on people and property.
- Some natural hazards can led to disasters. There are many factors which affect the impact of natural hazards.
- There are many different ways that countries and people can manage tectonic hazards.

Key
Concepts:



Place



Space



Environment



Earth
Systems

Catholic Social
Teaching

KEY TERMINOLOGY

Curriculum Links

Core	The centre of the Earth, made up of a molten outer core and a solid inner core.
Crust	The outer layer of the earth
Densely populated	An area with a lot of people living within a square kilometre.
Disaster	A serious event that requires help from another country's government or international aid.
Dormant volcano	A volcano that has been quiet for a long time, but might erupt again.
Fold mountains	Mountains formed when two of earth's tectonic plates push together, making the rocks above fold upwards.
Lahar	A torrent of ash and hot or cold water flowing very quickly down a river valley.
Liquefaction	When an earthquake shakes wet soil and rock, causing water in it to rise to the surface, and turning the soil into liquid mud.
Lithosphere	The rocky, hard part of the earth's surface, including the crust and upper mantle
Magnitude	A measure of the size of an earthquake. The higher the number, the stronger and bigger the earthquake.
Mantle	The layer of softer rock that lies between earth's outer layer and its core.
Plate boundary	Lines along which tectonic plates meet.
Pyroclastic flow	A dense cloud of hot gas and shattered rocks flowing downhill at high speeds.
Sparsely populated	An area with few people living in it.
Tectonic plates	Large, moving slabs of rock that make up earth's crust
Tsunami	A series of large ocean waves usually caused by an underwater earthquake or volcanic eruption.
Volcano	A rupture in earth's crust from which lava, gases and ash can erupt.