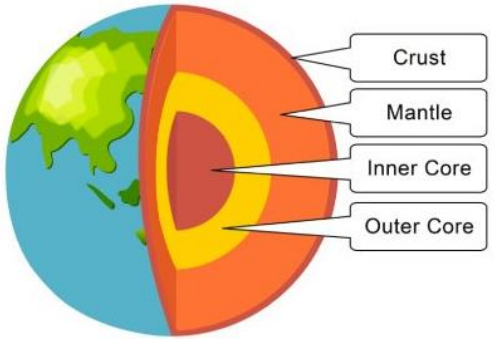
Year 8 – Deadly Earth

What should I already know?

- Examples of natural hazards
- Be able to describe what an earthquake and volcano is
- Give examples of extreme weather that presents a hazard to life
- How the level of country development (HIC or LIC) can change the level of impact felt



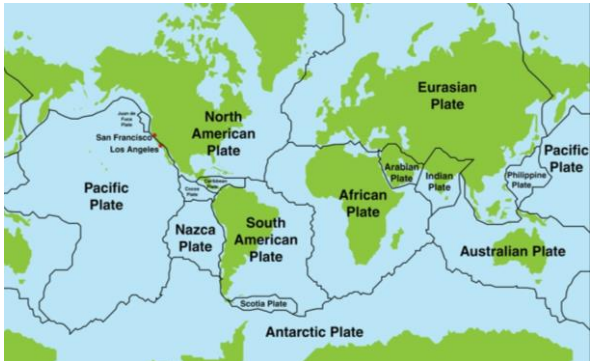


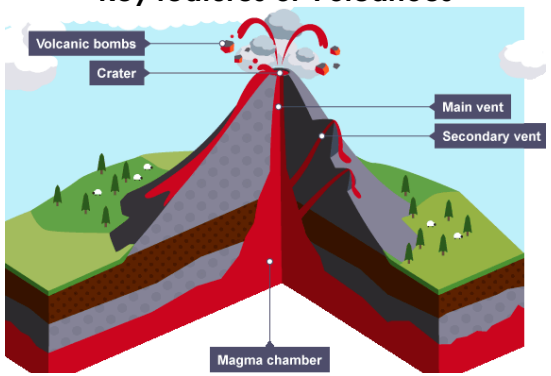
Plate Boundary/Margin:

Collision – where two plates collide and form mountains and can cause earthquakes.
Constructive – where two plates pull apart, magma rises and cools to form new land.
Destructive – when an oceanic plate is forced under a continental plate, pressure builds and can cause volcanic eruptions/ earthquakes.
Conservative – where two plates slide passed each other, can cause earthquakes.

Key Vocabulary and definitions

Hazard	A natural event that will have a n effect on people/the environment.
Primary Effects	the results or problems that happen due to the hazard.
Secondary Effects	problems caused due to the primary effects.
Response	how the hazard is dealt with or managed.
Tectonic Plate	a piece of the earth's crust layer.
Earthquake	a sudden violent shaking of the ground due to tectonic plates moving.
Volcanic Eruption	when lava and gas are released from a volcano.
Hurricane	a rapidly rotating low-pressure storm system with extremely strong winds.
Drought	a prolonged period of lower-than-average rainfall, leading to a shortage of water.

Key features of Volcanoes



Types of Volcanoes

Composite	Shield
• Acidic lava, which is very sticky • Steep sides as the lava doesn't flow very far before it cools • Violent eruptions. • Longer periods between eruptions • Found at destructive plate boundaries where oceanic crust sinks beneath continental crust	• basic lava, which is very runny • gentle sides as the lava flows for long distances before it solidifies • less violent eruptions • shorter periods between eruptions • Found at constructive plate margins, where plates are moving apart

Living with Volcanoes: Whilst the risks can be high there are benefits to living near volcanoes

Geothermal energy can be harnessed by using the steam from under the ground.

Many people can visit the area, creating a tourism industry and jobs.

The soil around volcanoes is rich in minerals and therefore creates excellent farming land.

Prediction – Attempt to forecast an event, where and when it will happen based on current knowledge. E.g., analysing historic records and seismic monitoring.

Protection – Actions taken before an earthquake or volcanic eruption to reduce its impact. E.g., Build using reinforced materials.

Planning – Identifying/avoiding places most at risk from natural hazards, such as evacuation drills.

Hurricanes:

- Tropical storms form over warm oceans.
- Tropical storms bring with them high winds, rain and storm surges.
- Tropical storms can cause damage and danger to life.

Droughts:

- Lack of clean/safe drinking water available, particularly in LICs.
- Droughts can lead to crops being ruined, causing higher food prices.
- Heat related illness and deaths.

Earthquake: Japan, 2011 (HIC)	**Volcano: Tonga, 2022**

• Facts:
  ○ 11th March 2011
  ○ 9.1 Richter scale
• Causes:
  ○ Destructive plate boundary
• Consequences:
  ○ Caused a tsunami
  ○ Over 15,000 deaths
• Responses:
  ○ Upgraded earthquake/tsunami warning system
	• Facts:
	  ○ 15th January 2022
	• Consequences:
	  ○ 3 deaths
	  ○ Causes a 15m tsunami
	  ○ Ash cloud and fall over 5km
	  ○ Major flooding of islands
	• Responses:
	  ○ US and New Zealand armed forces went to help with the clean up and delivered aid

My knowledge organiser notes: