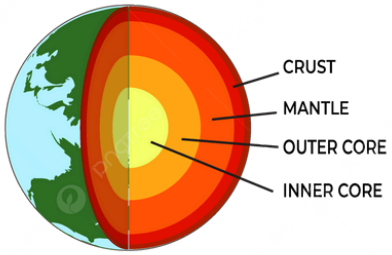
YEAR 9: WHY IS OUR PLANET SO DANGEROUS?
KNOWLEDGE ORGANISER

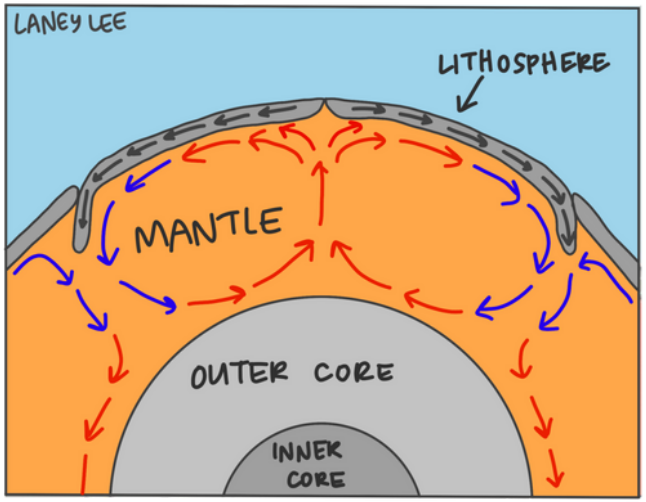
Key Terms

Epicentre: The point on the ground surface directly above the focus of an earthquake.
Focus: The point underground where the earthquake is triggered.
Seismic waves: Energy released from an earthquake
Tsunami: A destructive wave caused by an underground earthquake or volcanic eruption
Fault: A tear or fracture in the earth's crust

Layers of the earth



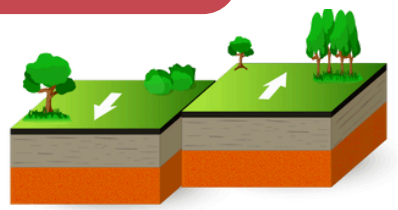
How do plates move?



Convection currents: Hot magma rises in the mantle, heated by the core, when it reaches the crust it cools and begins to sink back down. This causes the plates to move.

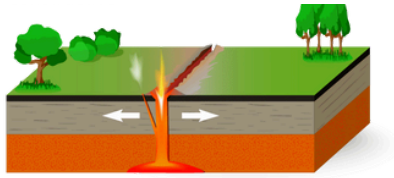
Plate Boundaries/Margins

Conservative



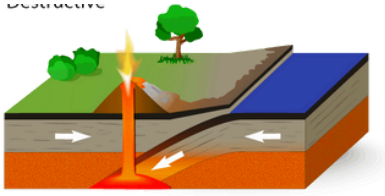
At a **conservative plate boundary**, two plates slide past each other. This can cause earthquakes.

Constructive



At a **constructive plate boundary,** two plates move away from each other. This can create both earthquakes and volcanoes.

Destructive



At a **destructive plate boundary,** an oceanic plate subducts (goes under) a continental plate. This creates both earthquakes and volcanoes.

How to describe location

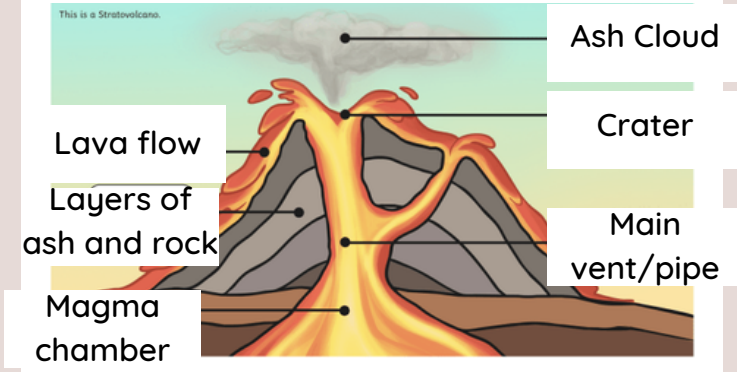
C.L.O.C.C. your description

C - Compass points - Use your compass points - is it located in the north, south, east, west?
L- Latitude line - Is it located near equator, Tropic of Cancer, or Tropic of Capricorn?
O - Oceans/Seas - What oceans or seas are nearby?
C- Continents - What continent is it located in?
C- Country - What countries are nearby OR what country is it located in?

Volcano Management

Gas emission monitors: These examine the amount of different gases being released by the volcano, sometimes increased gas emissions can be an indication a volcano may erupt
Seismographs: These monitor the amount and size of earthquakes, this is tracked as increased earthquake activity can be an indicator of a volcanic eruption, as the earthquakes indicate the movement of the magma in the volcano.
Tiltmeters/Satellites: The size and shape of the volcano is watched all the time from satellites in space and tilt meters on the ground, this allows us to see if the volcano starts budging as it fills up with lava as this can be a sign that an eruption is coming.
Hazard Zone Mapping: Areas surrounding a volcano can be divided up into zones. The zones nearest the volcanoes are the areas most at risk and during a moderate eruption, people would be completely evacuated.

Parts of a Volcano



Effects of La Palma Eruption

- Around 2000 buildings have been destroyed.
- Many banana plantations have been destroyed.
- Up to 15% of the islands annual banana production is at risk which endangers more than 5,000 jobs in the industry.
- Lava is creating new land where it meets the ocean and cools.
- Displaced around 6,400 people

Effects of the Christchurch earthquake

- 181 people were killed in the earthquake
- the total cost of rebuilding is around £10 billion
- Thousands of buildings were destroyed, including Christchurch Cathedral and Hospital

State your opinion!

Point - What is your point?
Evidence - What evidence could you use to support your point?
Explain - Explain how your evidence supports your point!
x2

Conclusion - Restate your opinion!

How to answer 6 mark questions

Effects of the Japan Tsunami

- 18,000 people dead.
- Radioactive contamination of soil, water and air.
- 450,000 homeless.
- Over 4.4 million people were left without electricity in Japan.
- 30ft tsunami caused damage and carried pollution 6 miles inland.