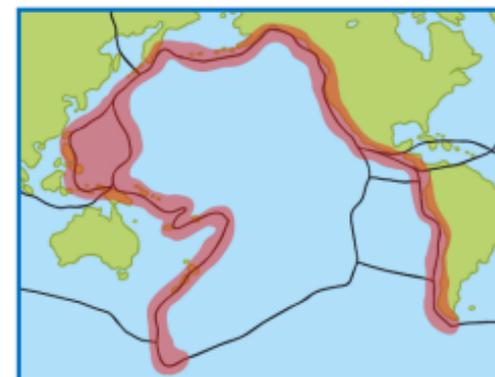


Year 6 – Natural Disasters and Climate Change Knowledge Organiser

VOCABULARY	
Natural disaster	A violent event that is outside the control of humans. They are caused by the forces of nature and may result in loss of life, injury and damage to property.
Tectonic plates	The Earth's crust is divided into sections which can move and are called tectonic plates.
Earthquake	A sudden violent shaking of the ground, typically causing great destruction, as a result of movements within the earth's crust or volcanic action.
Volcanic eruption	An opening in the earth's crust from which lava, ash and hot gases flow or are ejected during an eruption.
Avalanche	A mass of snow, ice and rocks falling down a mountainside.
Drought	A prolonged period of abnormally low rainfall, leading to a shortage of water.
Flooding	The covering or submerging of normally dry land with a large amount of water.
Hurricane/ Cyclone/ Typhoon	A storm with a violent wind.
Tornado	A mobile, destructive vortex of violently rotating winds having the appearance of a funnel-shaped cloud and advancing beneath a large storm system.
Tsunami	A long, high sea wave caused by an earthquake or other disturbance.
Wildfire	A large, destructive fire that spreads quickly over woodland or bush.
Aid agency	An organisation that gives money, equipment, medicines or services to people who need them in an emergency – often run by charities.

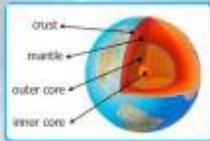
THE PACIFIC RING OF FIRE



The Ring of Fire is a horseshoe-shaped line on a map which is home to around 75% of the world's volcanoes and 90% of the world's earthquakes.

The area is a 25 000 mile line of volcanoes, tremors and earthquakes around the edge of the Pacific Ocean.

WHY DO VOLCANOES HAPPEN?



The Earth is made up of several layers. Underneath the crust is the **mantle**. This layer consists of semi-molten rock.

In some areas, the mantle becomes so pressurised that it becomes a liquid called **magma**. The liquid then escapes through vents in the crust. This is what a volcano is.

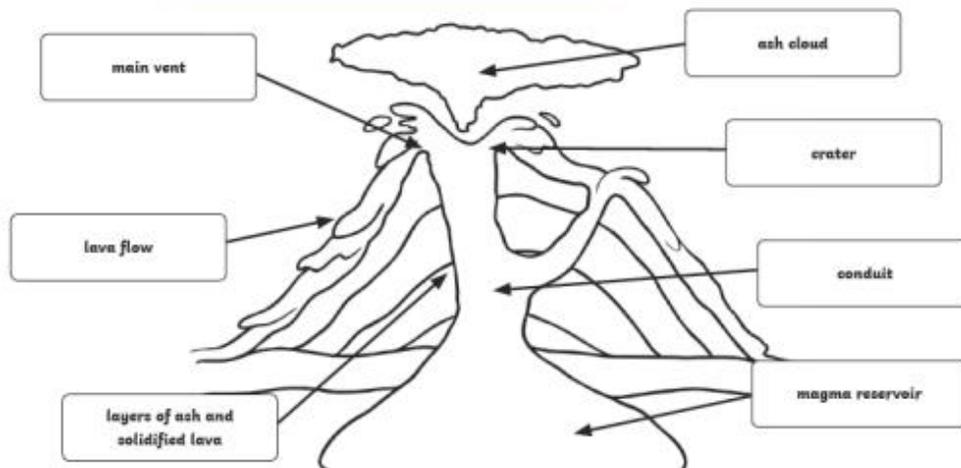
The magma builds up in a magma chamber until the pressure is too much and it has to be released.



TYPES OF VOLCANO

Active	A volcano that has erupted since the last ice age (i.e., in the past 10,000 years).
Dormant	A volcano that hasn't erupted in the past 10,000 years, but which is expected to erupt again.
Extinct	A volcano that nobody expects to ever erupt again.

VOLCANO DIAGRAM



WHY DO EARTHQUAKES HAPPEN?

Earthquakes usually occur on the edges of large sections of the Earth's crust called tectonic plates. These plates slowly move over a long period of time. Sometimes, the edges, which are called fault lines, can get stuck, but the plates keep moving. Pressure slowly starts to build up where the edges are stuck and, once the pressure gets strong enough, the plates will suddenly move causing an earthquake.

MEASURING EARTHQUAKES

Scientists, known as **seismologists**, use the **Moment Magnitude Scale (MMS)** to determine the **magnitude** (strength) of an earthquake. The MMS measures the total energy of an earthquake, called the **seismic moment**. The seismic moment of an earthquake is determined based on three factors.

1. The distance that rock slides along a fault surface after it breaks, called the **fault slip**.
2. The area of the fault surface that is actually broken by the earthquake.
3. The measurement of how **rigid** the rocks are near the broken fault.

MOUNT VESUVIUS

- Mount Vesuvius is an active volcano in Campania, Italy.
- It has erupted more than 200 times.
- It is famous for the 79AD eruptions which destroyed the Roman cities of Pompeii and Herculaneum.

EARTHQUAKE DIAGRAM

