



Key Vocabulary

Word	Meaning
natural disaster	An sudden accident or catastrophe, caused by nature, that causes great damage or loss of life and hardship.
tectonic plates	Large pieces that make up the Earth's crust. They are in constant motion, moving 2-5cm per year.
convection currents	Heated by the outer core, currents in the mantle cause magma to move constantly.
volcano	A mountain with an opening, from which lava and gases flow.
magma	Molten rock beneath the Earth's crust.
lava	Molten rock that flows from volcanoes.
tsunami	A giant ocean wave, usually caused by an underwater earthquake or volcanic explosion.
earthquake	A sudden or violent movement within the Earth's crust, followed by a series of tremors or shockwaves.
hurricane	A storm with violent winds.
tornado	A violent storm with whirlwinds.
drought	A long period of dry weather.
Richter Scale	A scale used to measure the strength of an earthquake..
epicentre	The point where an earthquake reaches the Earth's surface.
Volcanic Explosivity Index	The VEI scale describes the size of explosive volcanic eruptions based on magnitude and intensity.
Ring of Fire	An area around the Pacific Ocean, where many volcanoes and earthquakes occur.

Natural Disasters



Earthquakes happen when two **tectonic plates** slip suddenly. This sends shockwaves to the surface of the Earth. When earthquakes occur underneath or near water, they may trigger tsunamis. Both can cause huge human and environmental damage.

Volcanic eruptions occur when **lava**, rock, hot gases and ash are released through a **volcano** from beneath the Earth's surface. During eruptions, damage and death is caused by lava flows, mudslides and avalanches.



Hurricanes and **tornadoes** are both examples of extreme weather that include very strong winds. Large hurricanes and tornadoes have the power to uproot trees, throw cars and even dismantle buildings. They cause huge storms, which lead to flooding.

Droughts occur when places do not receive an adequate water supply, often as a result of decreased rainfall.

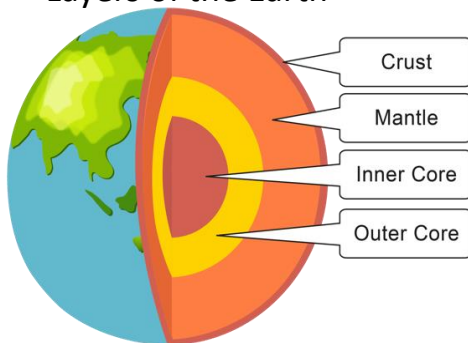
Flooding is an overflow of water that submerges land, destroying environments and spreading diseases.





Tectonics

Layers of the Earth

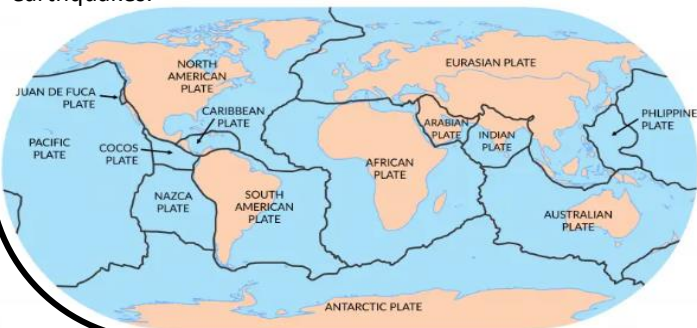
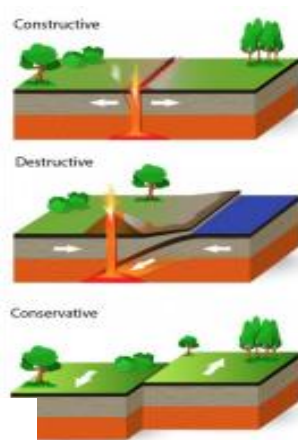


The surface of the Earth is split up into massive chunks. These are called **tectonic plates**. These tectonic plates are floating on a layer of **magma** beneath them, called the **mantle**. Then these plates move into each other, we experience **earthquakes**, **tsunamis** and **volcanoes** on the Earth's surface.

Constructive boundaries are where two plates are moving apart. **Magma** rises to fill the gap and cools forming new crust. This is when **volcanoes** occur.

Destructive boundaries are where two plates move towards each other. Some plates can be destroyed when this happens and some fold upwards to create mountain ranges.

Conservative boundaries are where two plates move sideways past each other or in the same direction, causing earthquakes.



major tectonic
plates

Volcanic eruptions

There are three key stages to a volcanic eruption:

The core transfers its heat to the mantle, melting some of the solid rock.

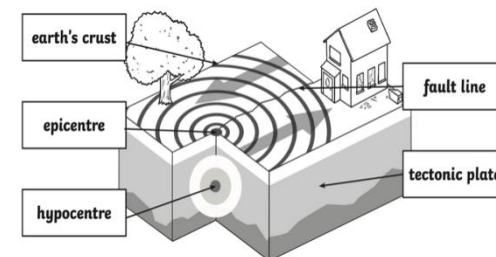
This now molten rock is lighter than the solid rock, and rises through the mantle, where it then escapes through a vent in the Earth's crust, causing a volcanic eruption.

The lava from the eruption cools and solidifies, forming a new crust. Over time, and after many eruptions, this solidified lava forms the shape of a volcano.

Earthquakes

Earthquakes happen when **tectonic plates** collide or slide past each other.

The strength of an earthquake can be measured using the **Richter Scale**. The point where the earthquake reaches the surface of the Earth is called the **epicentre**.



Earthquake shockwaves

Extending your learning

1. Visit the Volcanoes and Earthquakes Gallery at the Natural History Museum in London
2. [Natural Disasters \(nationalgeographic.com\)](https://www.nationalgeographic.com/natural-disasters/)
3. [natural disaster - Students | Britannica Kids | Homework Help](#)
4. [The natural world - KS2 Geography - BBC Bitesize](#)
5. [How earthquakes trigger tsunamis - BBC - YouTube](#)



Knowledge Organiser Revision Schedule

Here is the revision schedule for this half term's knowledge organiser. Please help your child to learn the specified section each week.

Week	Knowledge Organiser Section to Learn
Week 1 – w/c 12.9.22	Key Vocabulary 1-6
Week 2 – w/c 26.9.22	Key Vocabulary 7-12
Week 3 – w/c 10.10.22	Layers of the Earth and Earthquakes
Week 4 – w/c 31.10.22	Volcanic Eruptions
Week 5 – w/c 14.11.22	Tsunamis
Week 6 – 28.11.22	Flooding