

Year 4 Knowledge Organiser – Earthquakes and Human settlements.

This term we will learn that:

- Earthquakes occur along tectonic plate boundaries. The movement of the plates causes earthquakes to occur.
- Damage caused by an earthquake is called an 'effect'. The effects are felt most at the epicentre and this is different to the focus.
- Earthquakes are measured using the Richter Scale.
- The effects of an earthquake can be categorised into economic, environmental and social.
- That collapse of buildings caused most of the deaths and damage in Haiti; in Japan most of the effects were due to a tsunami.
- Many people live in earthquake prone areas of the world.
- Humans can reduce the effects of earthquakes by mitigation strategies; this is called a 'response'.
- Responses to earthquakes differ.
- Use and interpretation of proportional circles.
- Use Venn diagrams to classify information.
- Geographical information can be classified economically, socially and environmentally.
- Responses to natural events can depend on the level of development of a country.
- Levels of response can be at the local, national and global scale.

Key Facts

Tectonic plates fit together like a jigsaw and, because they are part molten, they move in different directions and at different speeds.

Where the plates meet is called a plate boundary.

At some boundaries, the plates are sliding past each other; at others the plates are moving away from each other; and at others the plates are moving towards and colliding with each other. Sometimes these plates lock together when they meet, and this can cause an earthquake.

The epicentre is the location directly above the focus of the earthquake, and on the earth's surface. It is where most impact is felt.

An earthquake magnitude tells us about the energy ('power') released by the movement of the earth's crust.

There can be **economic effects**. These are to do with **money** and the cost of the damage caused.

There can be **social effects**. These are to do with **people** and the affect that the damage has on the people there.

There can be Environmental effects. These are to do with the damage to the environment.

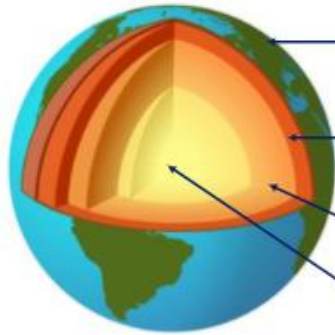
Earthquakes can cause long, high waves called tsunamis.

Key Vocabulary	Meaning
Earthquake	A sudden, violent shaking of the ground.
Magnitude	The size or extent of something.
Richter scale	A scale to show the magnitude of an earthquake.
Tsunami	A long, high sea wave caused by an earthquake or other disturbance.
Epicentre	The point on the earth's surface vertically above the focus of an earthquake.
Crust	The earth's outer layer of solid rock.
Mantle	The mantle is the largest layer of the Earth and is mostly solid, or semi-molten rock.
Outer core	A layer of the earth that is semi-molten rock.
Inner core	The earth's inner layer of solid rock.
Tectonic plates	The earth's crust and upper layer of mantle are made up of different pieces called tectonic plates.
Plate Boundary	Where tectonic plates meet.
Economic	Relating to the economy.
Environmental	Relating to the natural world.
Social	Relating to society.

Prior Learning	Following on
<ul style="list-style-type: none"> • Use of countries and continents to locate earthquakes and tectonic plates (Y1). • The earth is made up of four layers: crust, mantles, outer core, inner core (Y3). • The earth's crust and upper layer of the mantle is split into tectonic plates. These come together at plate boundaries (Y3). • Using a globe and atlas (Y1). • Using a 4-point compass (Y1). • Reading information from a table (Y2). • Drawing an accurate diagram (Y2). • Using a key (Y3). 	<ul style="list-style-type: none"> • Time zones of the world (Y5). • Understand that vulnerable settlements such as those damaged by earthquakes, can be similar to those in other locations of the world such as migrant settlements and shanty settlements (Y6). • Using and naming lines of latitude and longitude (Y5). • Identifying and naming hemispheres (Y5).

The structure of the Earth

The Earth is made up of four layers



Crust
Outer layer of solid rock

Mantle
Semi-molten rock

Outer core
Semi-molten rock

Inner core
Inner layer of solid rock

Map of the world's tectonic plates.

