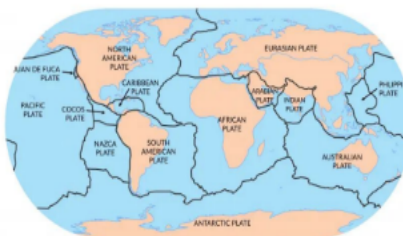


Geography Subject Knowledge Bank

Year 5: Earthquakes- How do they change the world?

<u>Vocabulary</u>	<u>Definition</u>
fault line	A long crack in the surface of the earth
Richter Scale	A way to measure the magnitude of earthquakes
displacement	The action of moving something from its place
tsunami	A giant wave caused by earthquakes.
Plate tectonics	The way in which the earth below the surface is split into plates that slowly move.
epicentre	The point on the earth's surface that is directly above where an earthquake occurs.

Tectonic Plates: Oceanic and Continental



What is a tsunami?

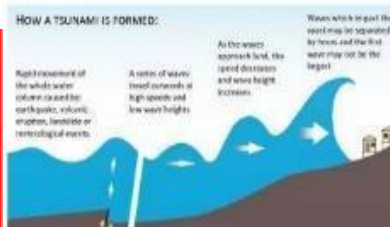
- If an earthquake is beneath the ocean it can create a series of huge waves, called a **tsunami**.

What is beneath the Earth's surface?

- The Earth is made up of different layers, the core at the centre, which is mainly metal, the mantle, which is mainly rock, the crust, which is the part we can see.
- The crust (together with the upper layer of the mantle) is made up of different pieces, called **tectonic plates**. These plates fit together like a jigsaw and are **moving** at a rate of a few centimetres a year, in different directions and at different speeds.
- Some plates slide past each other, others move away from each other and some bump into each other.
- Sometimes these plates lock together when they meet. This is called a plate boundary or a fault line.

What happens during an earthquake?

- As plates move in different directions over long periods of time, **friction** causes **energy** to build up.
- It becomes so great that the energy is **released**, which creates a shock wave - an **earthquake**.
- The **Richter magnitude scale** is used to measure the size of earthquakes. The higher the number, the more powerful the earthquake and the higher the chance that it will cause real damage.
- The largest earthquake recorded in the UK happened in 1931, and measured 6.1 on the Richter scale.



Where do earthquakes occur?

- Many earthquakes occur around the **Pacific Ocean**. People who live there, in countries such as Japan, are used to earthquakes happening and build **earthquake-resistant buildings** that sway with the shock waves rather than fall down.
- There are thousands of earthquakes across the world each day.
- Although there are earthquakes in the UK, they are rare and so small that most people do not feel them.

What is the impact of an earthquake?

- Loss of life, injuries, and psychological trauma due to the shaking, collapsing structures, fires, and other dangers.
- Social impact, such as displacement, disruption of services, loss of community, and increased vulnerability.
- Economic damage, such as destruction of infrastructure, buildings, crops, and livelihoods, and increased costs of recovery and reconstruction.
- Environmental damage, such as land changes, liquefaction, landslides, tsunamis, flooding, and pollution.

