

Earthquakes

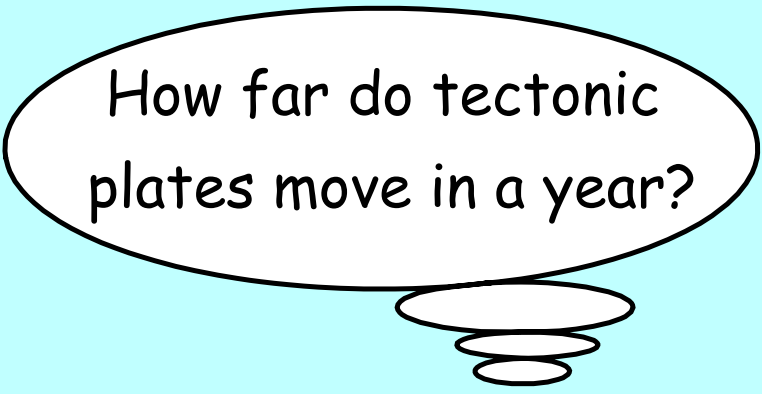
LO: I am learning to explain what an earthquake is and how they happen.



Earth is made up of huge pieces of flat rock called **tectonic plates**. These move very, very slowly, and places where they meet are called **faults lines**.



Which tectonic plate is the UK on?



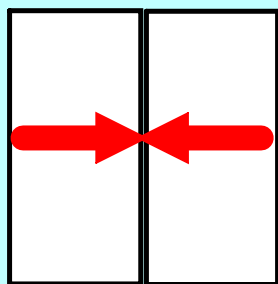
How far do tectonic plates move in a year?

Tectonic plates move about 2 to 5 centimetres.
This is the same speed that your fingernails grow.

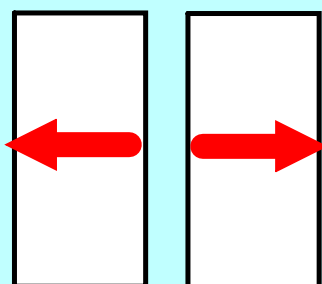


Tectonic plate movement

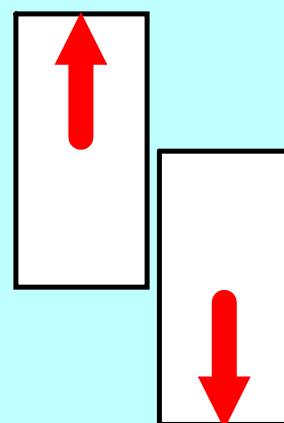
Convergent



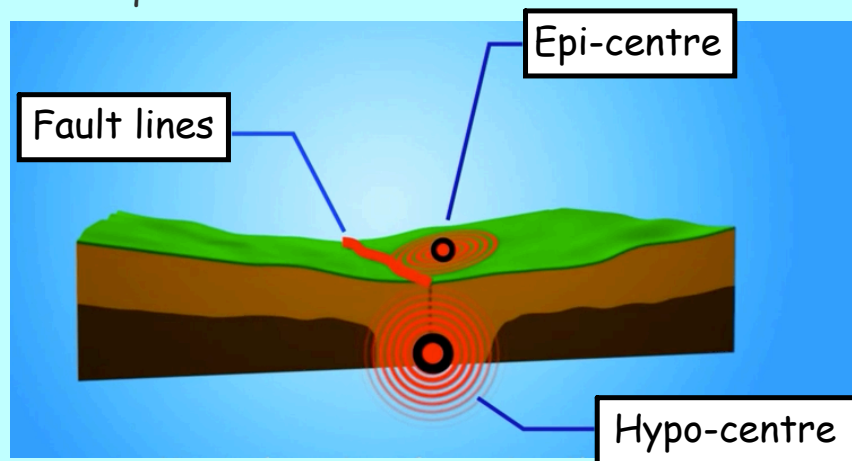
Divergent



Transform



When these plates rub together, the movement forces **waves of energy** to come to the earth's surface. We feel this on the Earth's surface as an earthquake.



The **epi-centre** is the point directly above where the earthquake originates from.



Epi-centre

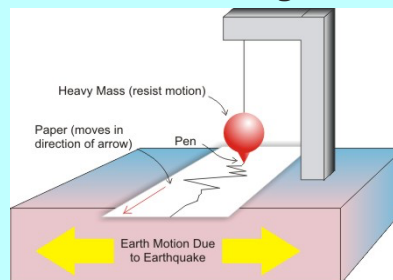
Earthquakes can sometimes be nothing more than small tremors or shakes, but sometimes they can cause damage and devastation.



Earthquakes can make **buildings** fall down and set off **landslides**, as well as having many other deadly effects. An earthquake that occurs at the bottom of the sea can push water upwards and create massive waves called **tsunamis**.



The power of an earthquake is measured using a **seismometer** which plots vibrations on a **seismograph**.



Magnitude is a measure of the energy released from an earthquake. The **Richter Scale** measures magnitude which is how much energy is released from an earthquake.

Intensity is measured by the effects of earthquakes, so if there was a lot of damage the earthquake has a high intensity.

1.How many earthquakes do you think happen each year?

- A. 20,000
- B. 84
- C. 500,000
- D. 1,900

There are about **500,000 earthquakes a year** around the world.

2.How many earthquakes of the earthquakes that happen each year cause damage?

- A. 100
- B. 1,000
- C. 100,000
- D. 10

About **100,000** of those can be felt, and only **100** or so cause damage each year.

3.How many earthquakes happen in California each year?

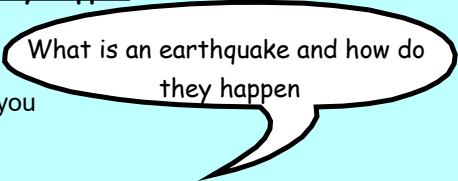
- A. 200,000
- B. 400
- C. 5,000
- D. 10,000

Each year, California alone experiences about **10,000** earthquakes, most of them not felt by people.

LO: to be able to explain what an earthquake is and how they happen

Task: Answer this question as fully as you can.

Re-watch the lesson video and pause to jot down information you need or look through the slides which are saved as a PDF.



What is an earthquake and how do they happen

You may set this out how you wish. You can hand write it, type it and you can add diagrams if it would help you explain.

Use the **key vocabulary** (spelt correctly!) below when writing your explanation.

Tectonic plates, fault lines, epi-centre, convergent, divergent transform, seismometer, seismograph, magnitude, richter scale, intensity

Attachments

Convection currents for all.docx

Convection currents.docx

Diagram of the Earth.docx

Wedge Earth to label.docx

Table to complete.docx

HA-word-bank.pptx

MA-word-bank.pptx

Word bank MA.docx

Word bank more details.docx

World map showing tectonic plates.docx

1. A Slice Through the Earth.ppt