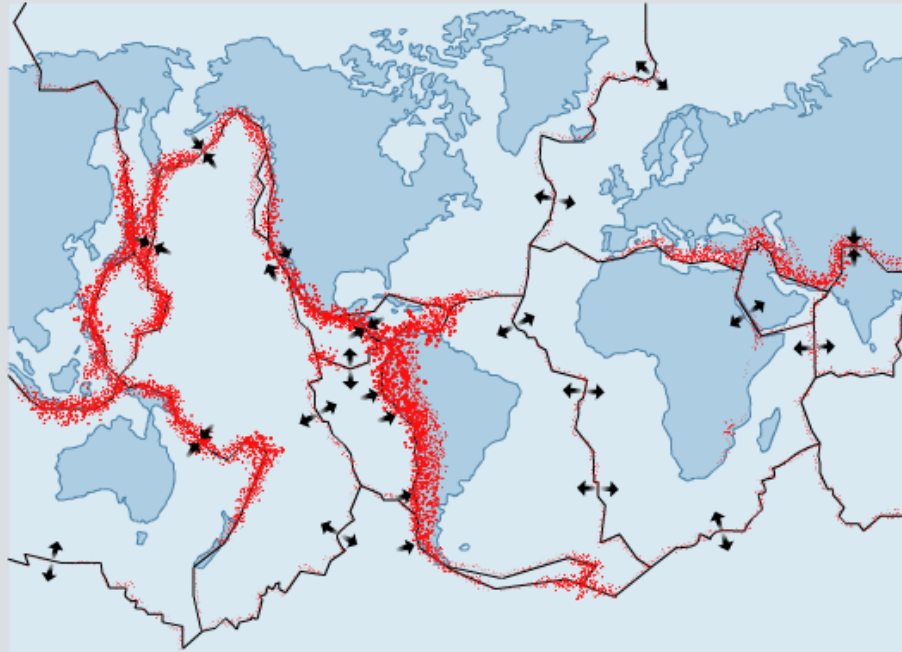


Earthquake Causes



What are earthquakes?



Where do earthquakes occur?



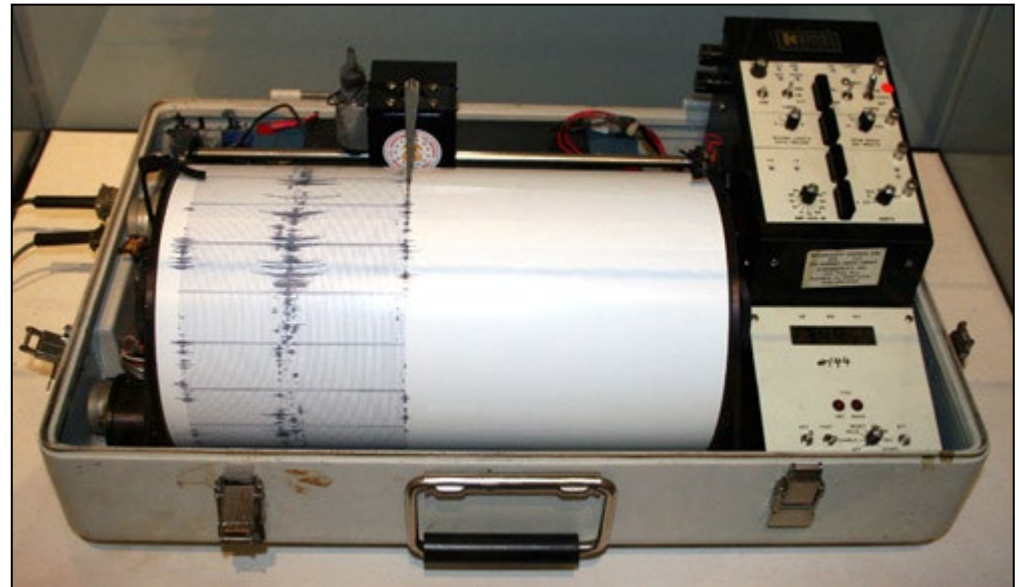
Seismic waves



How are earthquakes measured?

The **Richter scale** can be used to measure the **magnitude** (power) of an earthquake's tremor using an instrument called a **seismograph**. The Richter scale classifies earthquakes by magnitude from 1–10.

It is a **logarithmic** scale, which means that a scale 6 earthquake on the Richter scale is 10 times larger than a scale 5 and 100 times larger than a scale 4.



Do you know what the results and impacts of earthquakes of different scales are?

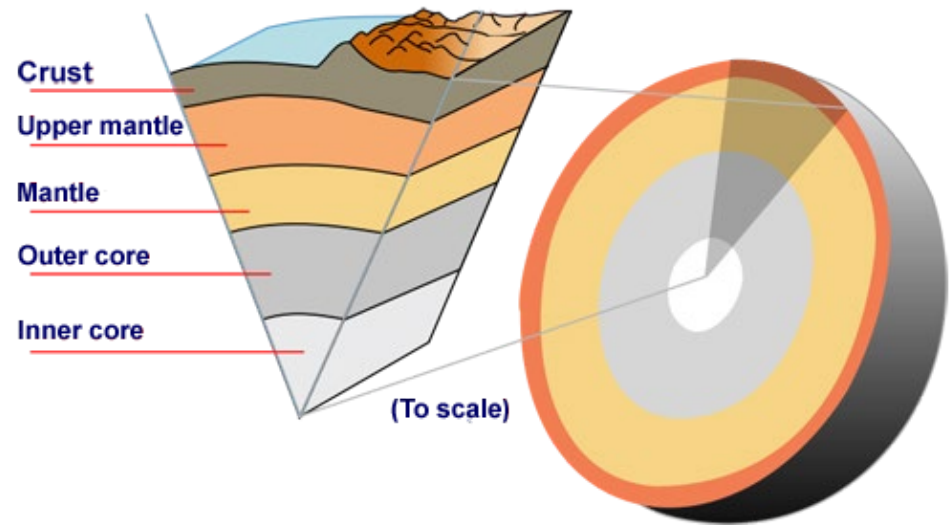


The causes of earthquakes

Earthquakes occur when rocks in the Earth's **crust** move suddenly. There are two main types of crust:

- **oceanic crust**: mostly made of **basalt**, it is found under the oceans and continents
- **continental crust**: mostly made of **granite**, it is found on the top layer of continents.

The crust is the outermost layer of the earth. Continental crust is less dense than oceanic crust and as a result it rises above it where they meet.



The plates that make up the earth's crust are moving towards or away from each other at a rate of a few millimeters a year. It is believed **convection currents** in the earth's mantle cause the plates to move. The movement is not smooth, and sudden movements cause earthquakes.

There are four types of plate boundary:

- **convergent** boundary (**subduction**)
- **convergent** boundary (**collision**)
- **divergent** boundary
- **conservative** boundary.



Convergent subduction boundaries



Convergent collision boundaries



Divergent boundaries



Conservative boundaries

