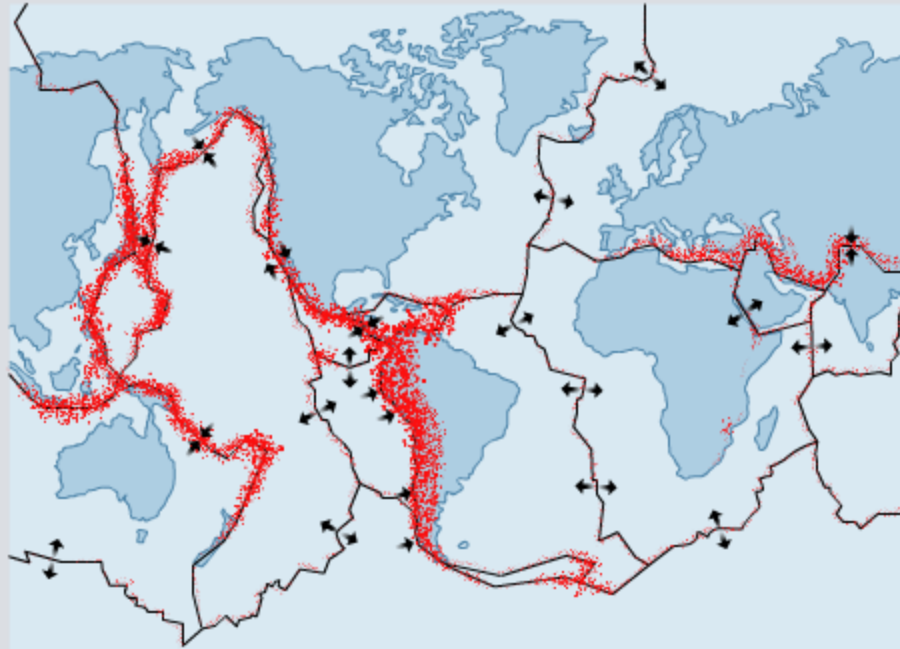
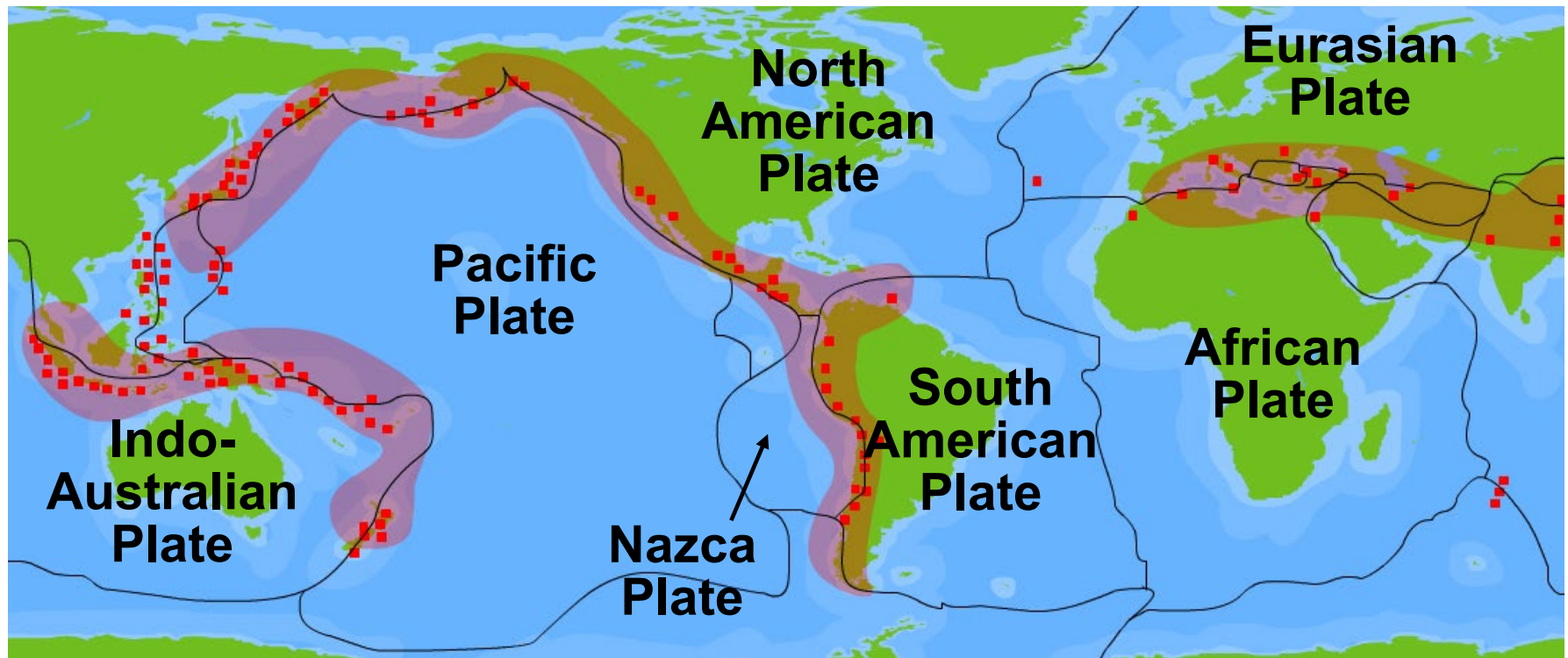


Earthquakes



Where do earthquakes occur?

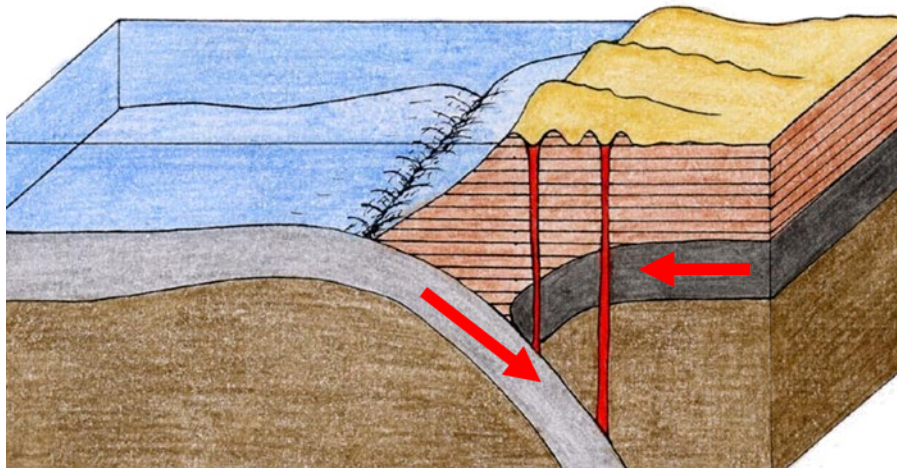
Earthquakes are vibrations of the earth's crust caused by movement at plate boundaries and major fault lines. The red areas on the map are where earthquakes are most common.



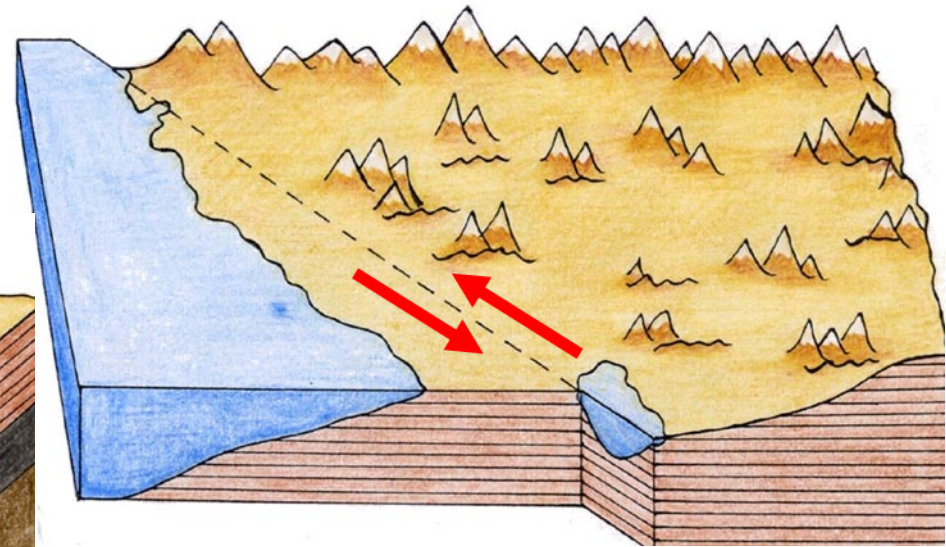
Do the location of earthquakes form a pattern?

What are earthquakes?

Earthquakes can occur at all four major plate boundaries, but the most severe earthquakes usually occur at **conservative** and **destructive** plate boundaries.



Destructive boundary



Conservative boundary

Destructive plate boundary



Conservative plate boundary



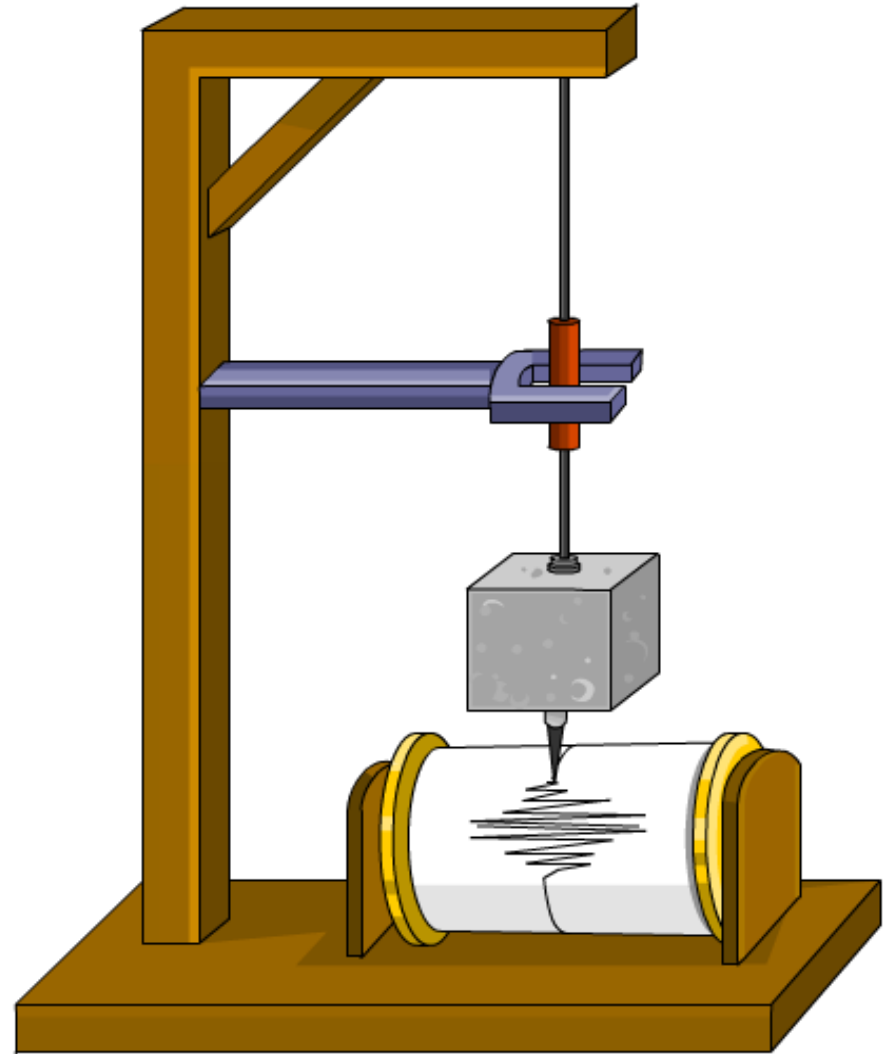
Epicenter and focus



How are earthquakes measured?

The **Richter scale** can be used to measure the magnitude (power) of a tremor using an instrument called a **seismograph**.

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



How does a seismograph work?



The Mercalli Scale

The **Mercalli scale** rates an earthquake's magnitude based on observations of the damage it causes on a scale of 1 to 12.



Some damage to buildings: scale 7



Buildings collapse: scale 10

