Plate Tectonics

- Layers of the Earth

Aim: How do doctors see your bones?

X-rays = A form of energy that travels in waves.

Geologists use energy from earthquakes to see inside the earth: Seismic Waves (P+S waves).

How do geologists know the Earth’s interior is divided into different layers?

- Speed of seismic waves (P+S) changes in different layers.
  - As density ↑ speed ↑ = more dense layer.

Where do earthquakes occur? ESRT p.5

Along plate boundaries. California, Japan, Peru, Chile.

USGS.gov/earthquakes [map] Earthquakes occur all the time.
Majority of earthquakes occur along the Pacific Plate. This is called the "Ring of Fire" due to lots of earthquakes and volcanic activity.

CRUST

Ocean collides with continent. Oceanic crust is more dense so it goes underneath and subducts. Forms mountains, volcanoes, islands.

ESRT p. 5

Aleutian Trench: Pacific Plate (oceanic/basalt) collides with North American Plate (continental)

Pacific Plate subducts under North American Plate to form Trenches, Mountains, Volcanoes, Islands.

ESRT p. 10

Earth's inner core is similar to meteorites in composition and density. Iron, Nickel.