

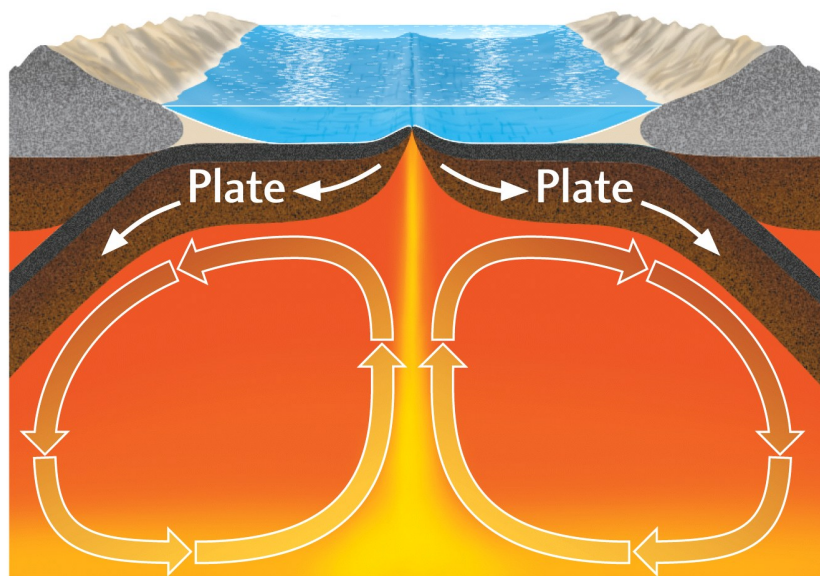
New Evidence of a Dynamic Earth

Discovery during WWII

Sonar readings used to measure the _____ of objects underwater, revealed that the Atlantic Ocean floor was not flat; it has trenches, mountain ridges and volcanoes. After the war, oceanographers discovered a massive ocean mountain range, called the _____. Trenches were also found at the edges of some continents.

Mantle Convection

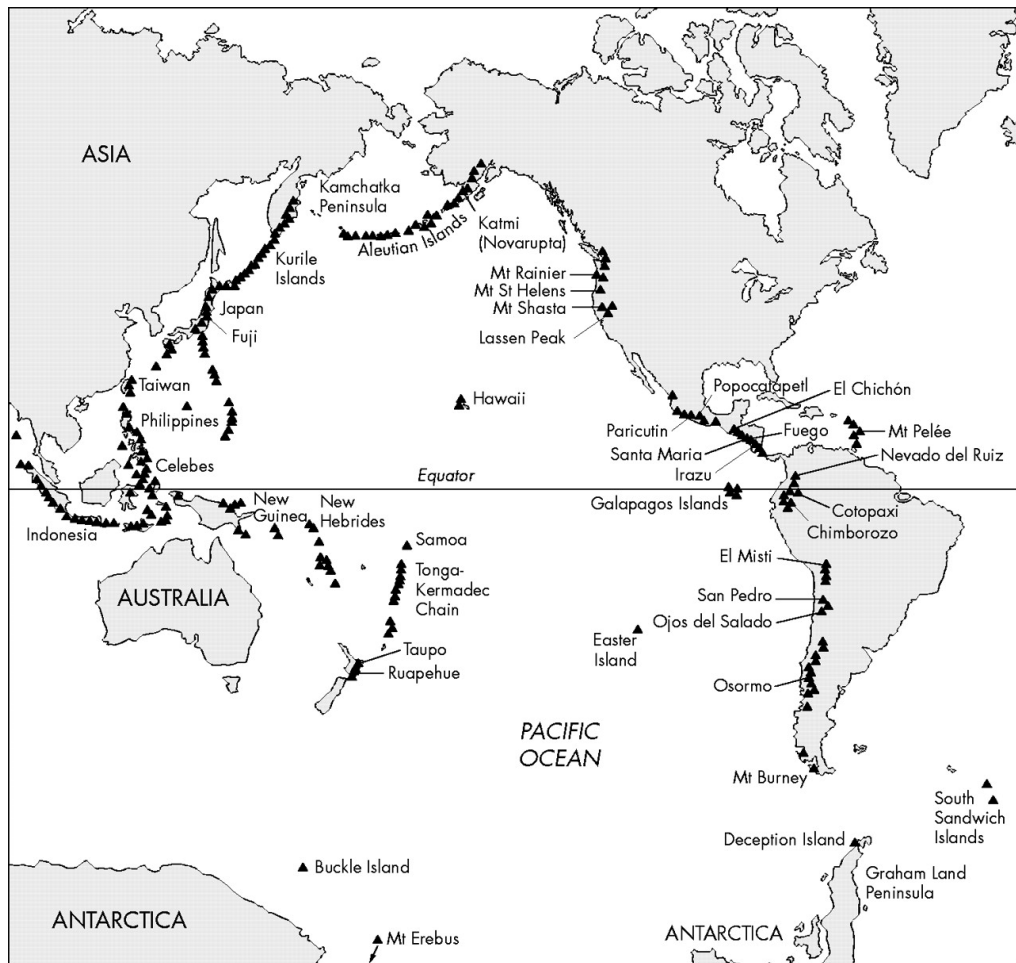
- Giant _____ cells within the upper mantle drag the plates along laterally
- Where convection rises, _____ takes place
- Where convection cells descend, they drag crust down, causing _____
- Heat comes from two sources: some _____ from the initial creation of the planet, and the rest is from the breakdown of naturally occurring _____ substances



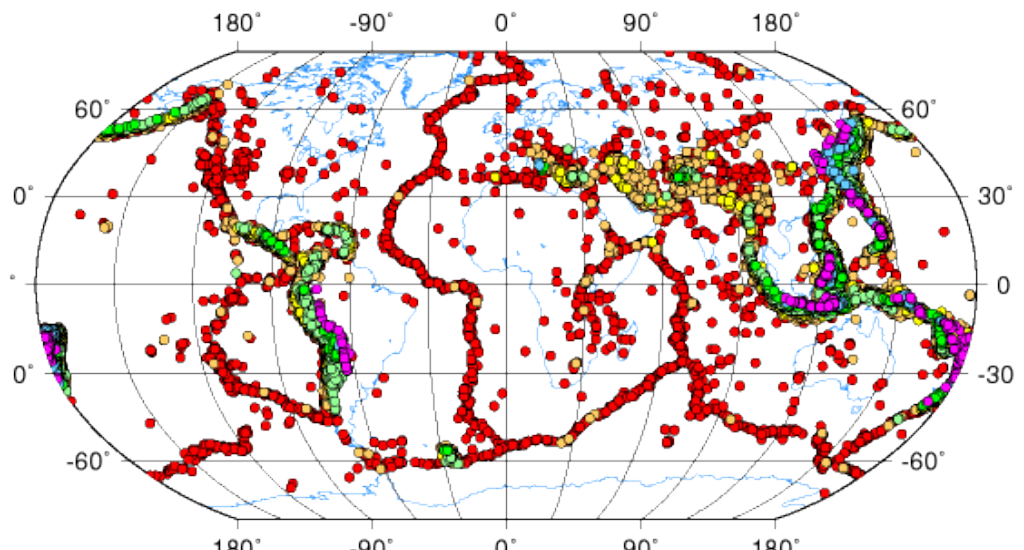
Evidence for Plate Tectonics

Volcanic Eruption and Earthquake Patterns – the distribution of volcanoes and earthquakes line up with the network of _____ and _____

Volcano
Patterns

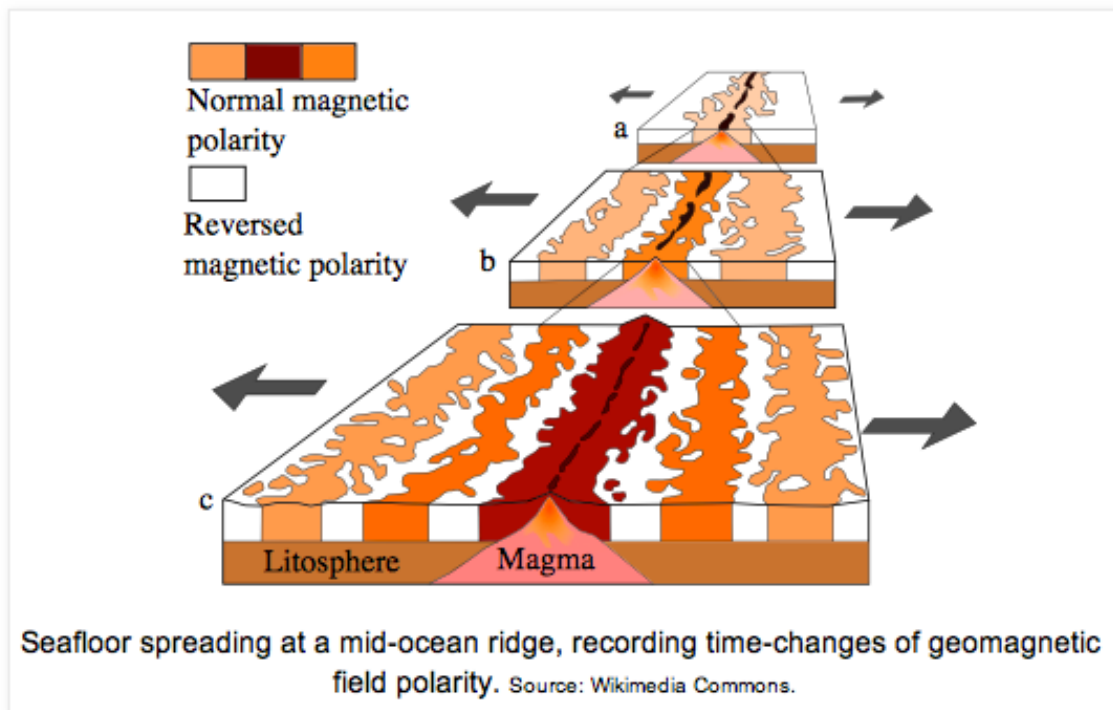


Earthquake
Patterns



Magnetic Reversals

The magnetic stripes are products of steady creation of _____ ocean crust over geologic time – as the Earth’s north and south poles _____ every _____ years



Radioactive Dating

Rock near mid-ocean ridges is _____ than rock near _____

