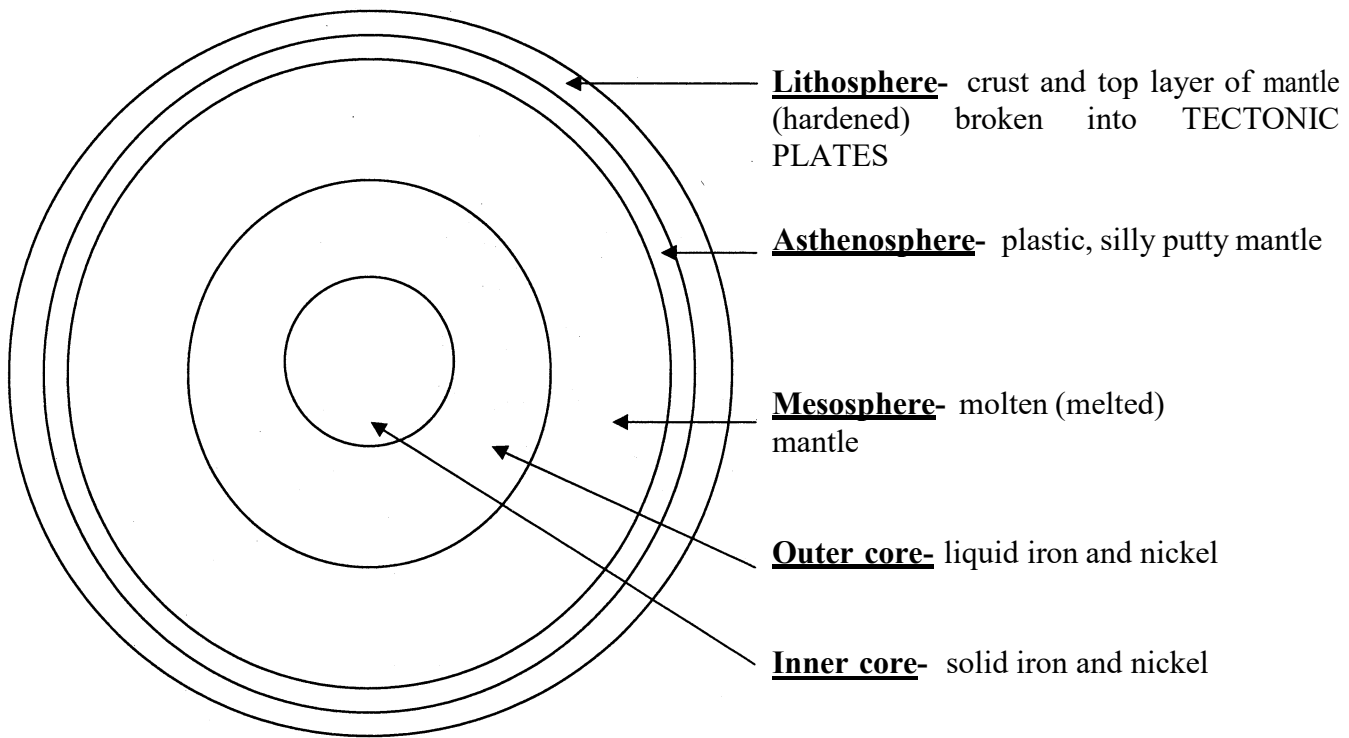


CONTINENTAL DRIFT CH 9.1

A. Earth's Structural Layers review



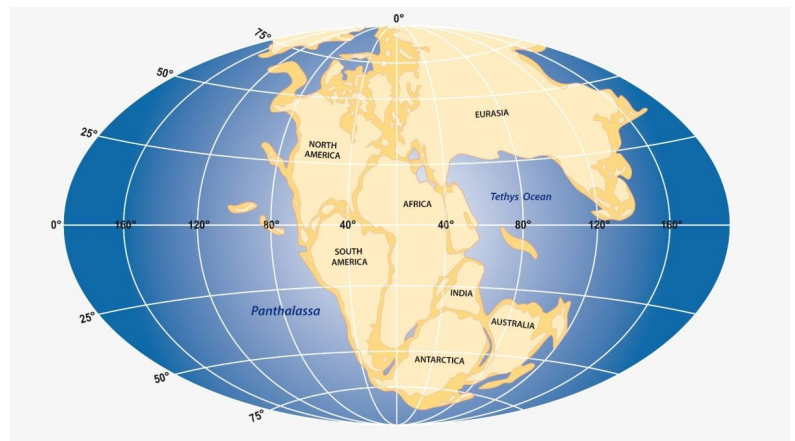
B. Continental drift- the hypothesis by Alfred Wegener that the continents once formed a single land mass, broke up, and drifted to their present locations

Evidence:

1. Continents fit like a puzzle
2. Fossil bands that start on one continent and continue on another
3. Fossils found where they could not normally exist (tropical ferns on Antarctica)
4. Similar rocks and mountain ranges on different continents
5. Glacier evidence where it is now warm

C. Breakup of **Pangaea**- "all earth" supercontinent

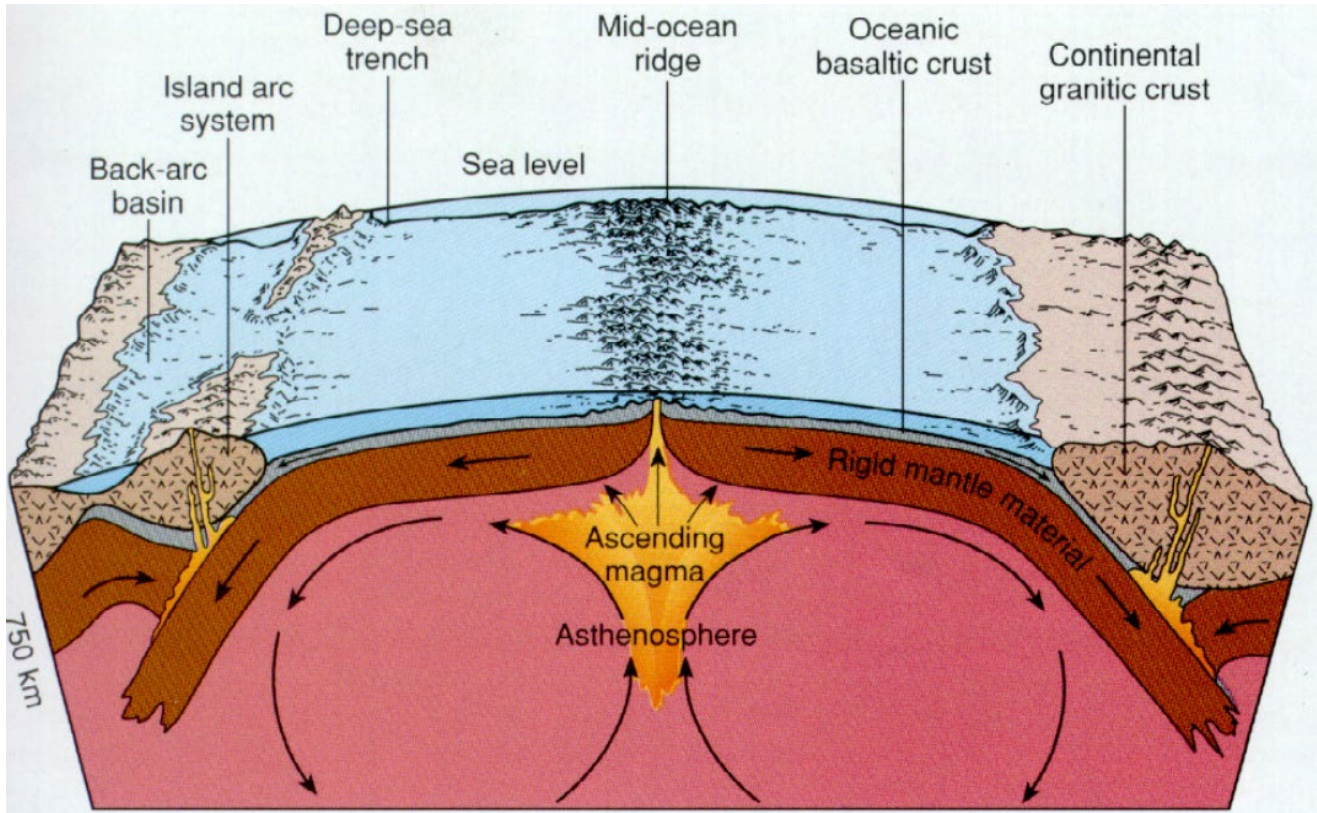
1. Formed 250-300 mya
2. Broke into Laurasia and Gondwana 200 mya
3. Split into smaller continents 50 mya



SEA FLOOR SPREADING 9.2

Sea floor spreading- (1950's) found by sonar equipment. Process by which new oceanic lithosphere forms as magma rises toward the surface and solidifies. When the sea floor spreads it forms a...

Mid ocean ridge- long chain of underwater mountains



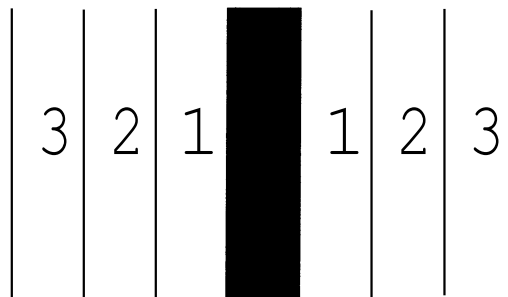
Evidence that the sea floor is spreading:

A) **Rock Age** - Older rocks farther away from mid ocean ridge and youngest next to ridge

1= youngest rocks

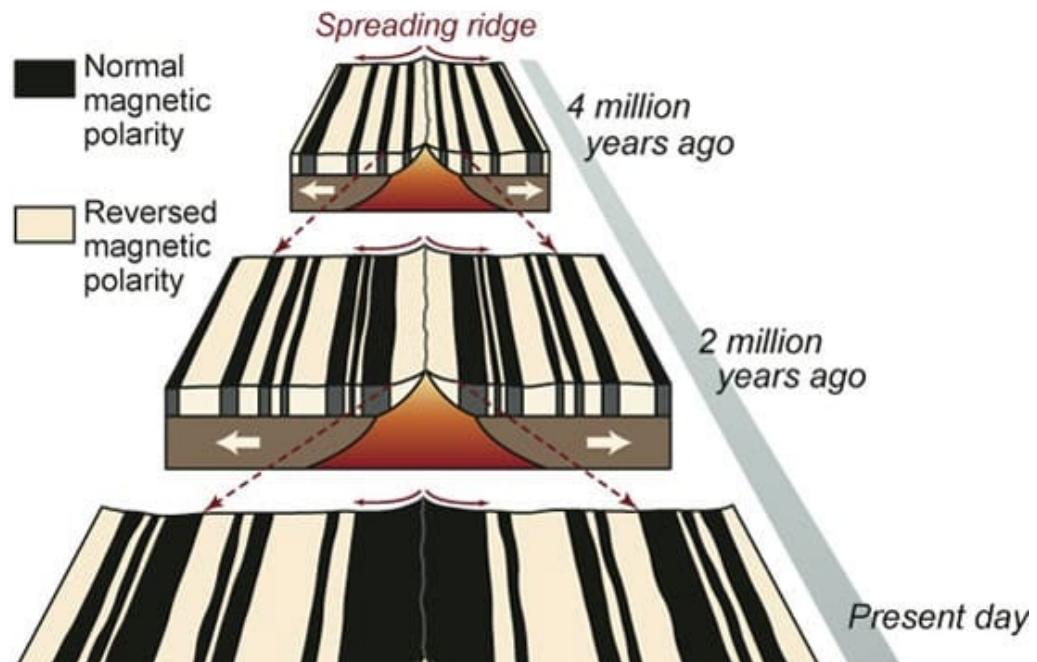
2= older rocks

3= oldest rocks



- B) **Magnetic reversal record**- formed when molten magma at mid ocean ridge cooled and iron atoms lined up with Earth's magnetic field at the time

Newest rock lines up with today's north pole



C) **Earthquake patterns**

- 1) shallow earthquakes near a **trench** (deep v shape formed from 2 tectonic plates colliding)
- 2) deep earthquakes farther from the trench
- 3) no earthquakes below 700 kilometers (the lithosphere has completely re-melted)

