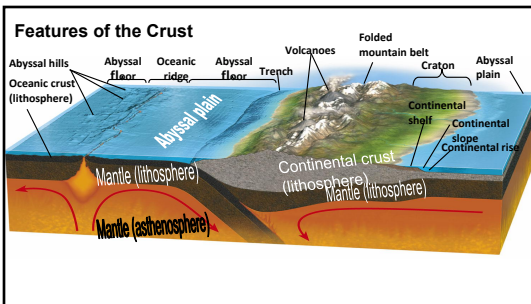
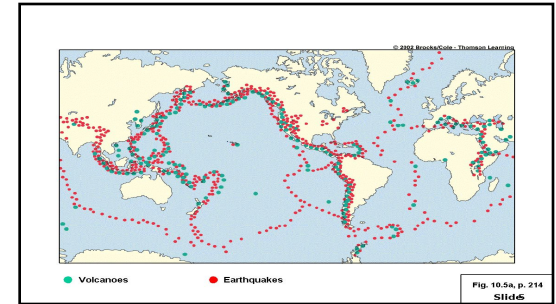
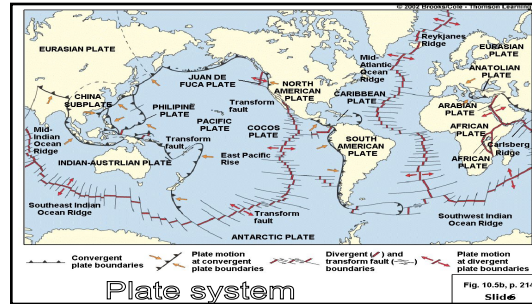


Plate Boundaries



How the Plates Move: Gravity/Slab Pull

- **Convergent boundary:** descending edges of 2 convection cells pull the denser crust (oceanic > continental) below the less dense crust
- Subducted plate melts into mantle
- Produces
 - Subduction zone
 - Trench
 - Volcanic Arc
 - Continental
 - Islandic

Convergent Plate Boundary

The diagram shows an oceanic plate subducting under a continental plate. Labels include oceanic plate, trench, continental plate, volcanoes, melting, and earthquakes.

Convergent Boundaries

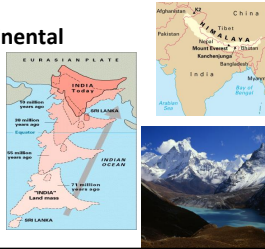
- **Oceanic-Continental**
 - subduction, trench, crust destroyed, volcanoes/mountains
 - Ex. Peru-Chile Trench & Andes Mountains

A map of South America showing the Peru-Chile Trench and the Andes Mountains. The Atlantic Ocean is labeled to the east and the South Pacific Ocean to the west.

Convergent Boundaries

- **Continental-Continental**

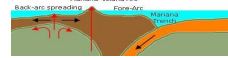
- mountains
- Ex. Himalayas



Convergent Boundaries

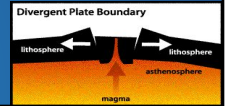
- **Oceanic-Oceanic** (one side will be cooler than the other)

- Subduction, trench, crust destroyed, volcanic island arc
- Ex. Mariana Islands,



How the Plates Move: Ridge Push

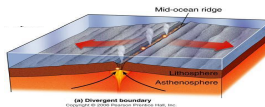
- **Divergent boundary:** rising edges of 2 convection cells push magma up at same location
- New crust pushes the older crust/lithospheric plates away from the area
- Produces
 - Mid-ocean ridges
 - New crust



Divergent Boundaries

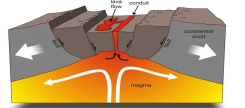
- **Oceanic-Oceanic**

- rift, volcanoes, new crust
- Ex. Mid Atlantic Ridge



- **Continental-Continental**

- rift, volcanoes, new crust
- Ex. Great African Rift Valley



Great African Rift Valley



Transform Boundary

- **Continental-Continental**

- Ex. San Andreas Fault (California)

