

# Converging and Diverging Plate Boundaries

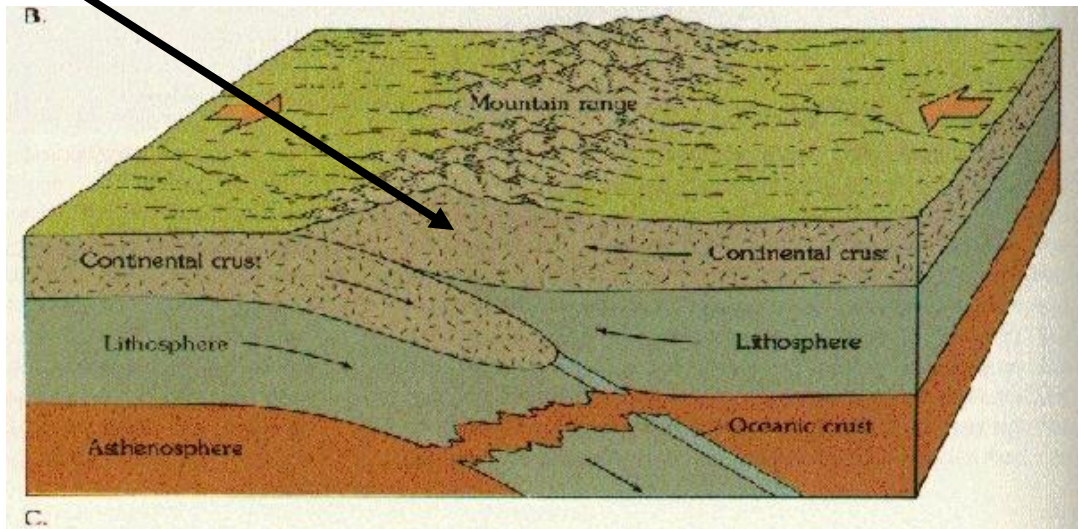
1. Landforms Created
2. Processes Occurring
3. Seismic Belt examples

# Pad Lab

- Converging Boundaries (3 types)
  - Continental and Continental
    - Blue pad → ← Blue pad

# Converging Boundaries

- **Continental & Continental**
- 1 Landform?
  - Mountains
- Process going on?
  - Mountain building
- Seismic Belt example?
  - Mediterranean Himalayan Belt
- [http://sepuplhs.org/middle/iaes/students/simulations/SEPUP\\_Plate\\_simulation.swf](http://sepuplhs.org/middle/iaes/students/simulations/SEPUP_Plate_simulation.swf)

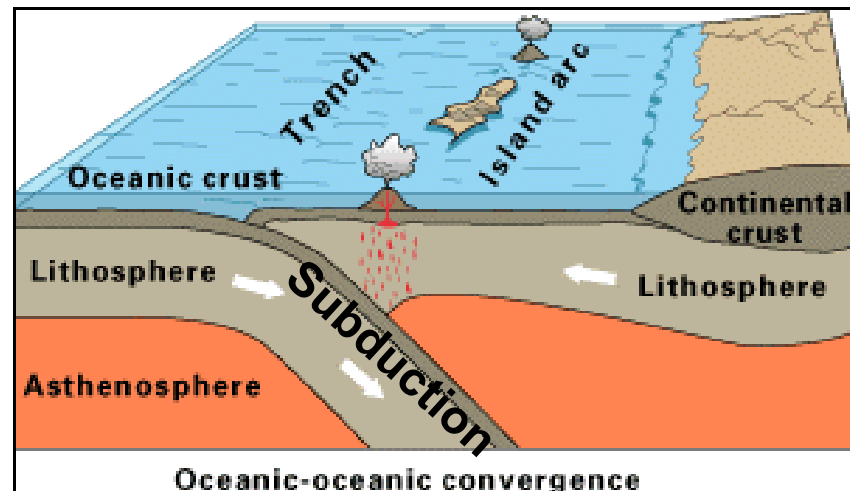
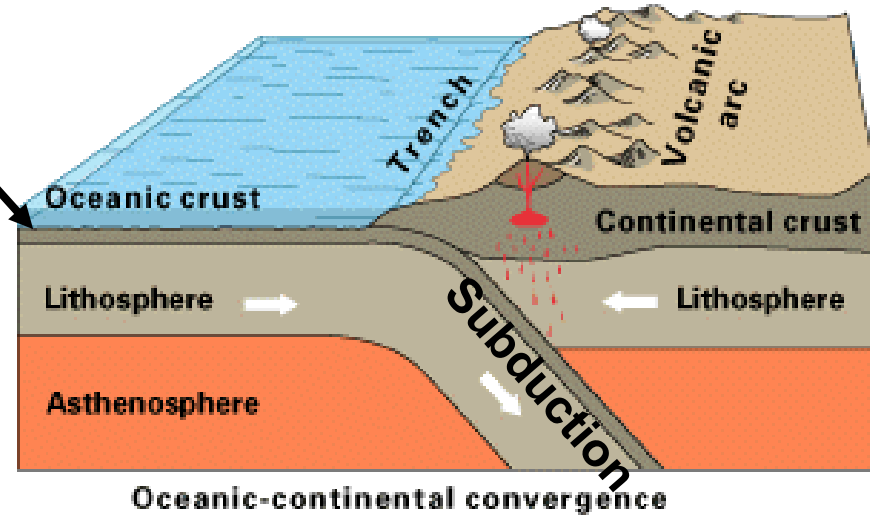


# Pad Lab

- Converging Boundaries (2 more types)
  - Oceanic and Continental
    - Black pad → ← Blue pad
  - Oceanic and Oceanic

# Converging Boundaries

- Oceanic & Continental
- Oceanic & Oceanic
- 2 Landforms?
  - Trench
  - Volcano
- Process of going under?
  - Subduction
- Seismic Belt example?
  - Ring of Fire!
  - Circum-Pacific Belt



[http://www.classzone.com/books/earth\\_science/terc/content/visualizations/es0804/es0804page01.cfm?chapter\\_no=visualization](http://www.classzone.com/books/earth_science/terc/content/visualizations/es0804/es0804page01.cfm?chapter_no=visualization)

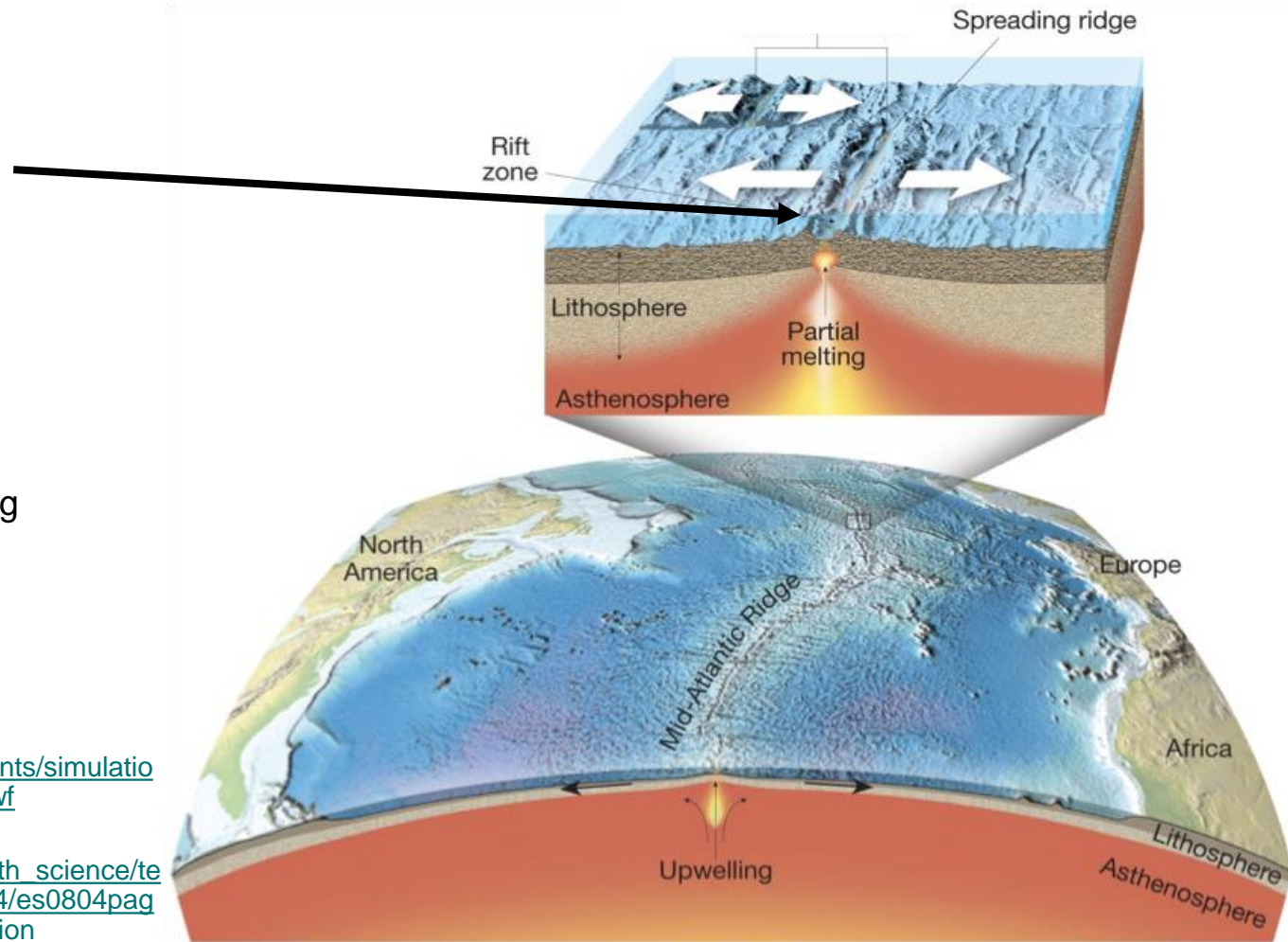
[http://www.iris.edu/hq/programs/education\\_and\\_outreach/animations/11](http://www.iris.edu/hq/programs/education_and_outreach/animations/11)

# Diverging Boundaries

- Moving Plates Model

# Moving Plates Model

- Diverging Boundaries
  - 1 Landform?
    - Mountain Ridge
  - Process?
    - Sea Floor Spreading
- Seismic Belt example?
- Mid-Atlantic Ridge

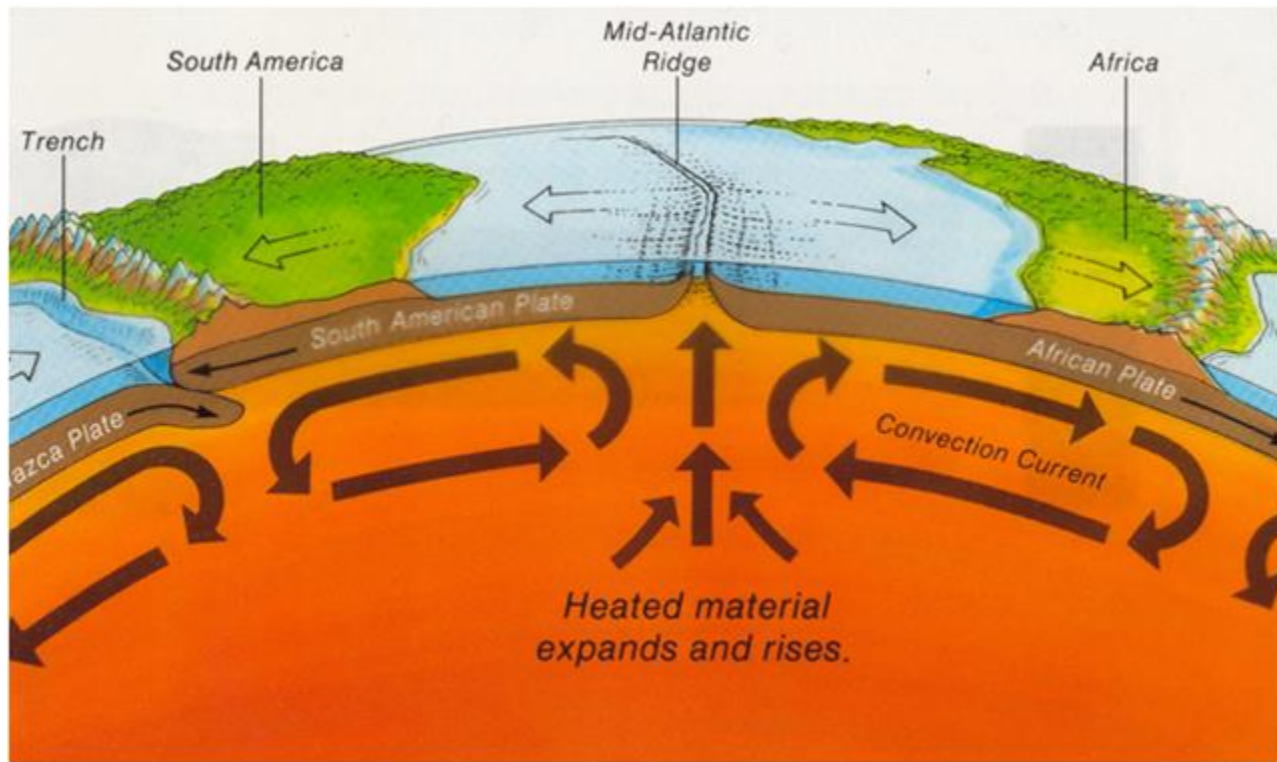


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[http://www.classzone.com/books/earth\\_science/terc/content/visualizations/es0804/es0804page01.cfm?chapter\\_no=visualization](http://www.classzone.com/books/earth_science/terc/content/visualizations/es0804/es0804page01.cfm?chapter_no=visualization)

# Converging and Diverging

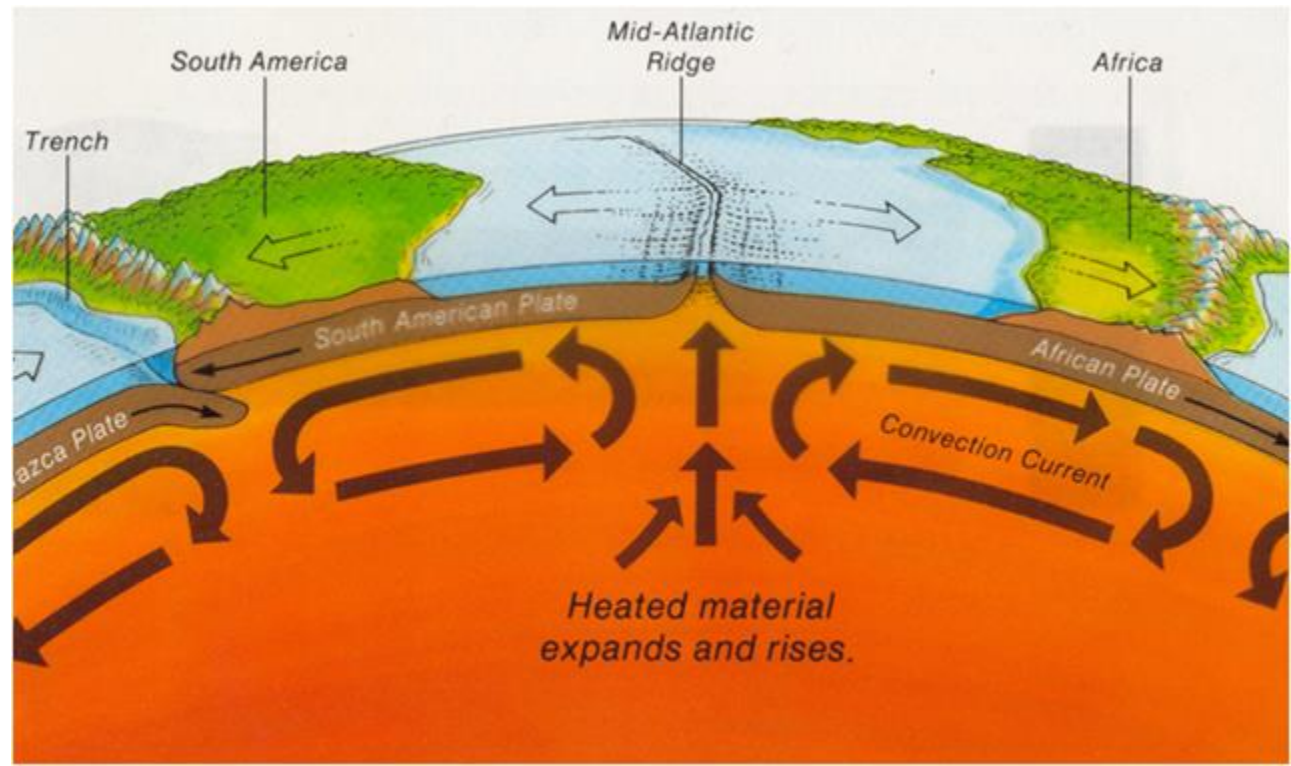
- Is the planet getting larger or smaller?





# Converging and Diverging

- NO! The Earth is NOT getting larger or smaller!
  - As new crust is being created at diverging boundaries, old crust is being destroyed at converging boundaries.
  - Balance!



# 3<sup>rd</sup> Type of Plate Movement?

- Show me with your hands!

# Fault Lab

- Transform Boundaries

- Landform?

- **None!**
- Wrinkles / Ridges form

- Process?

- **None!**

- Seismic Belt example?

- Ring of Fire / Circum – Pacific Belt
- California

- <http://www.planetseed.com/node/15235>

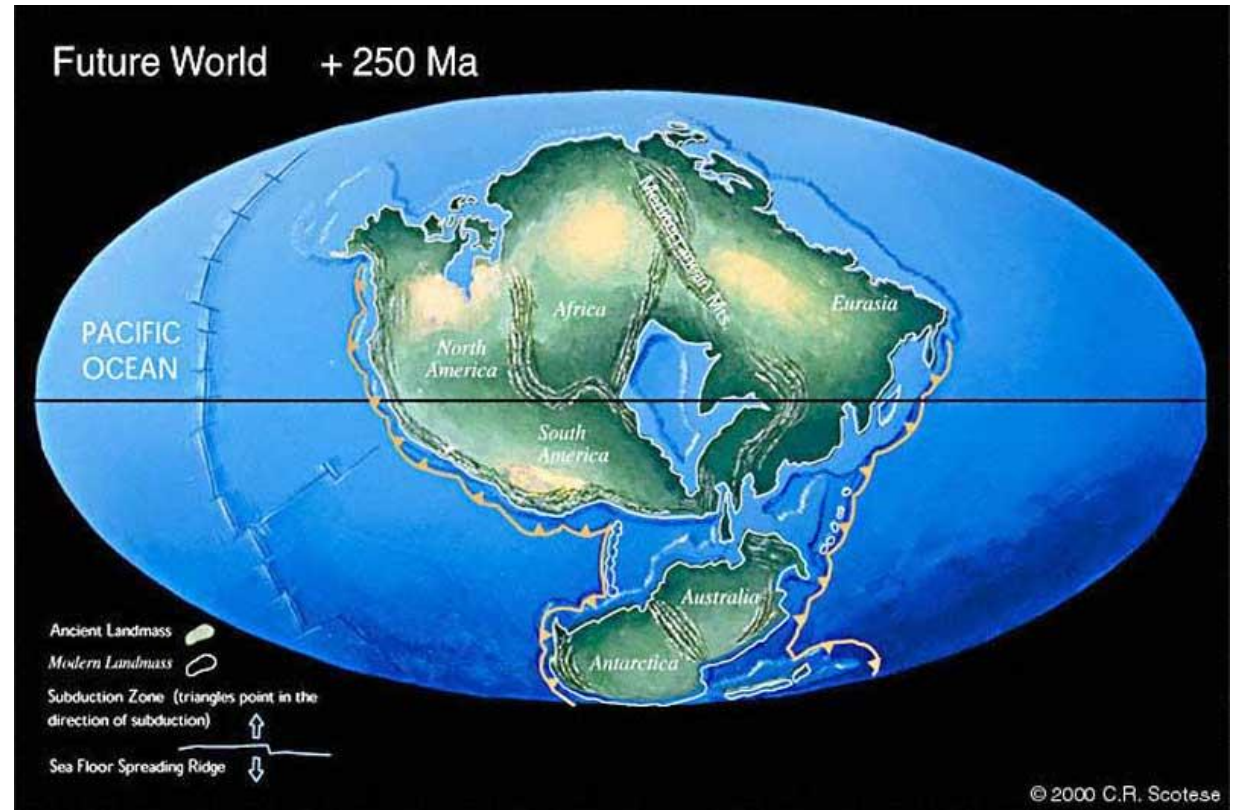


# What is the cause of the Moving Plates?

<http://www.youtube.com/watch?v=ryrXAGY1dmE>

# Where will plates be in the future?

- Pangea Ultima



- [http://earth.rice.edu/mtpe/geo/geosphere/topics/plate\\_tectonics/plate\\_future.mov](http://earth.rice.edu/mtpe/geo/geosphere/topics/plate_tectonics/plate_future.mov)

# Addition Animations

- <http://science7.com/ES-PlateTect-PlateMove.htm>