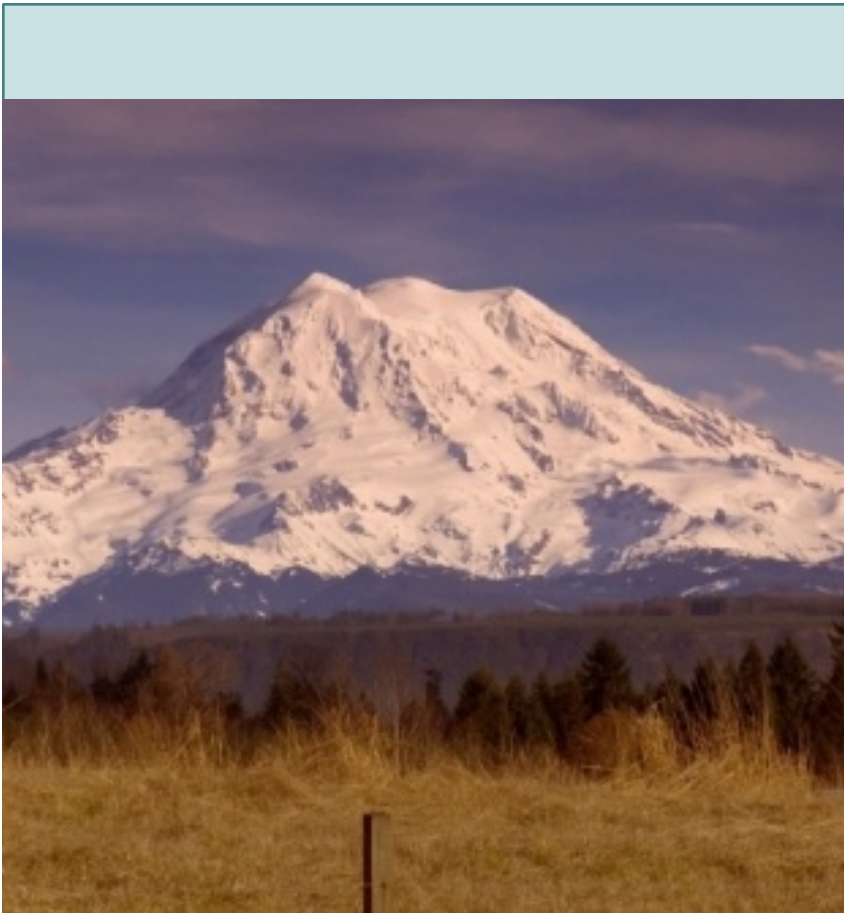


Bell Ringer: Page 39 of ISN: Compare the mountains in the photographs. Write a description of each mountain, and suggest how they might have formed.



Learning Objectives

I can...

Describe the process of plate tectonics.

Explain how plate tectonics creates mountains, volcanoes and earthquakes.

2.5 Plate Tectonics: Notes Pg 39







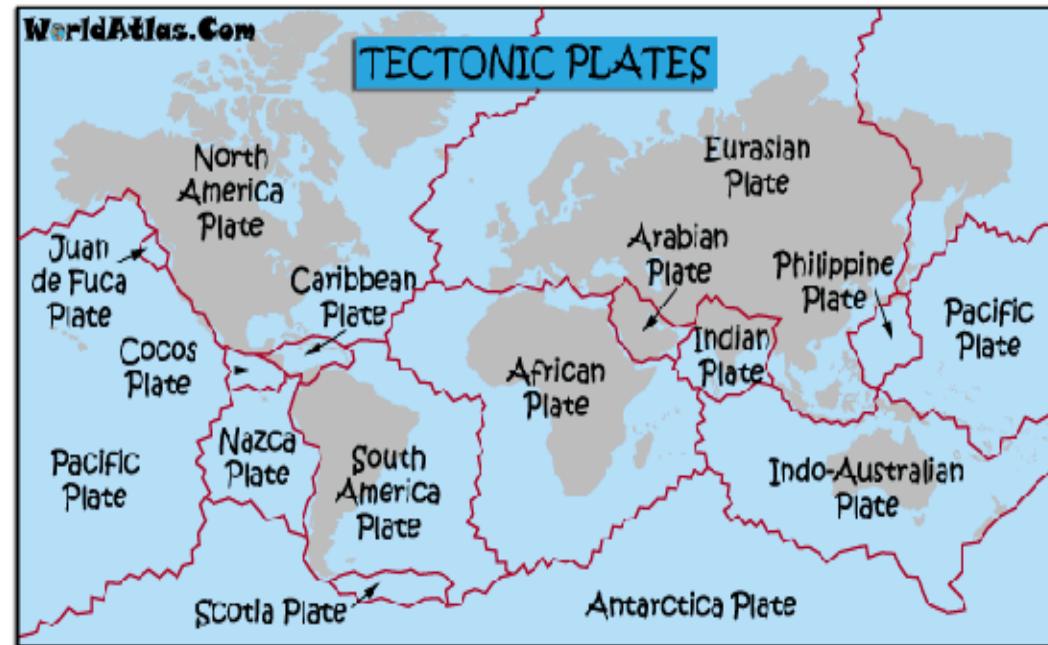






What are Tectonic Plates?

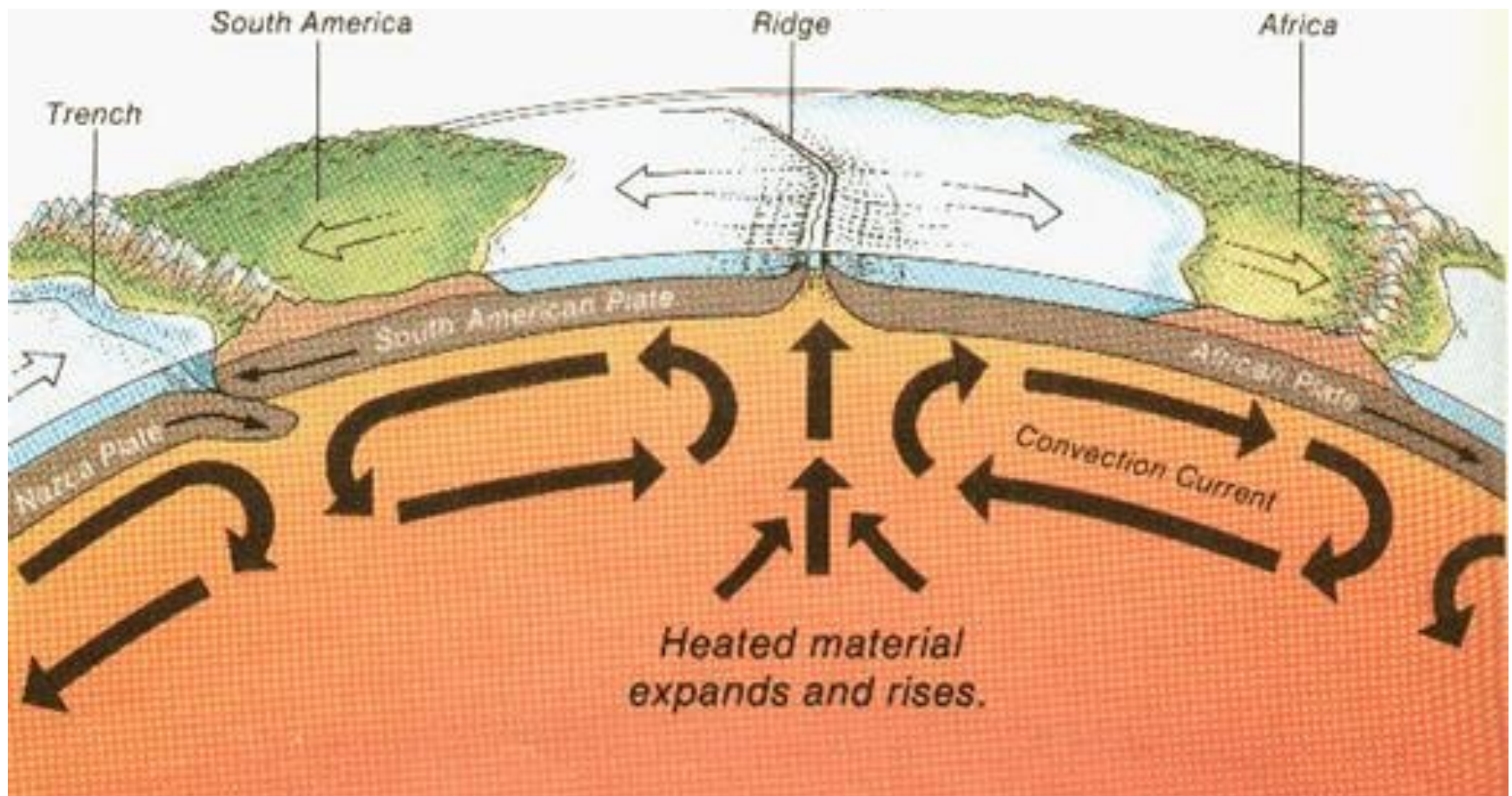
- Giant pieces of earth's crust...like pieces of a puzzle



Convection Currents

- Caused by rising hot magma near the earth's core while cooler magma near the crust sinks. This rising and falling of magma of different temperatures set up these currents the plates move on.
- Convection currents are the driving force of plate movement.

Convection Currents



Theory of Plate Tectonics

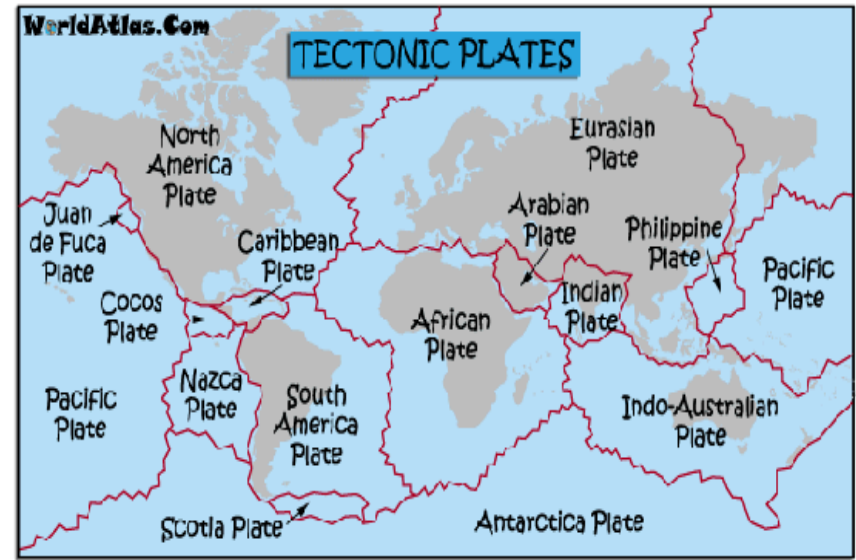
- **The Theory of Plate Tectonics** states that the crust of the earth is broken up into plates that float on the liquid mantle and is driven by convection currents within the mantle.

Types of Tectonic Plates

- Some plates are entirely oceanic crust or entirely continental crust while others are a combination of oceanic and continental crust

Fault Line

The boundary where two separate plates meet is the **fault**.



A fault is a crack in the earth's crust resulting from the movement of two plates.



San Andreas Fault



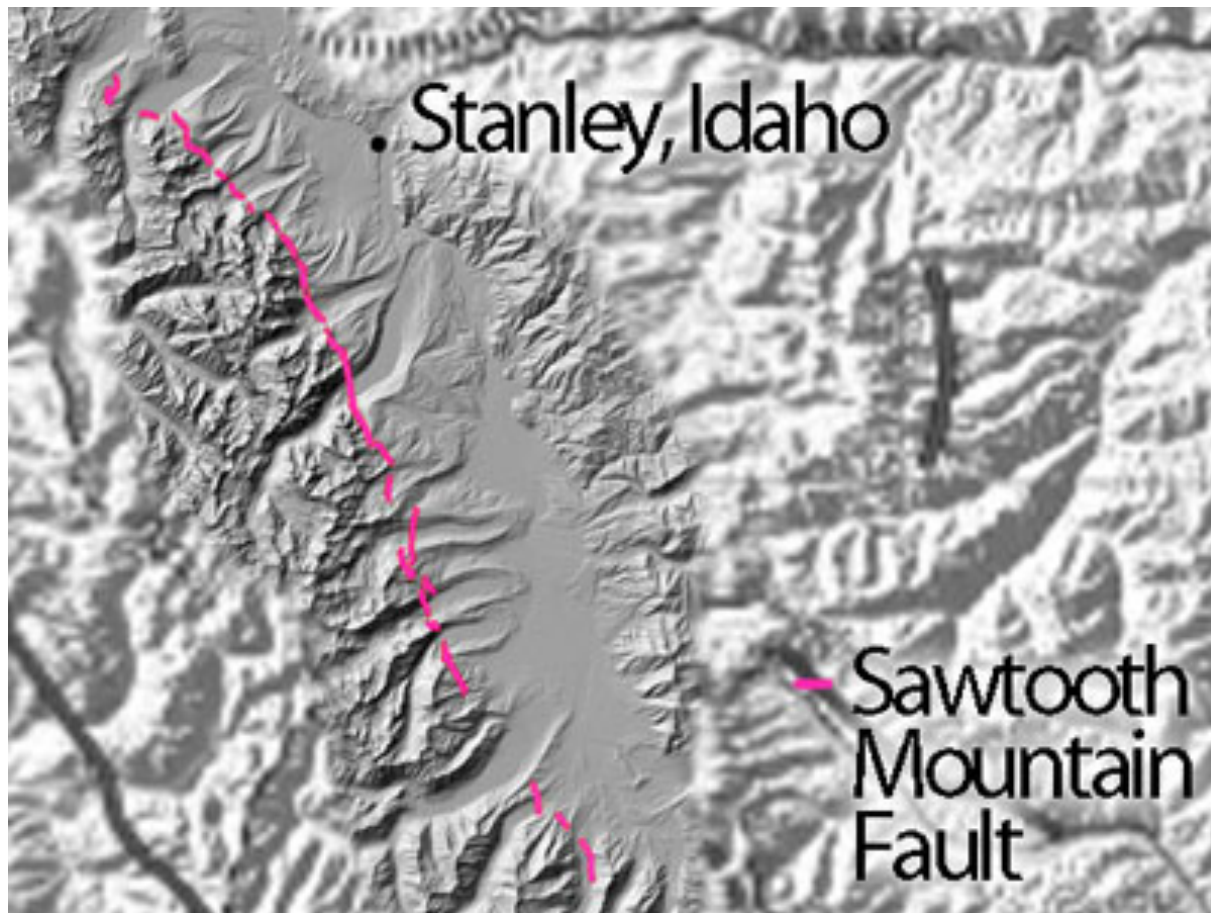


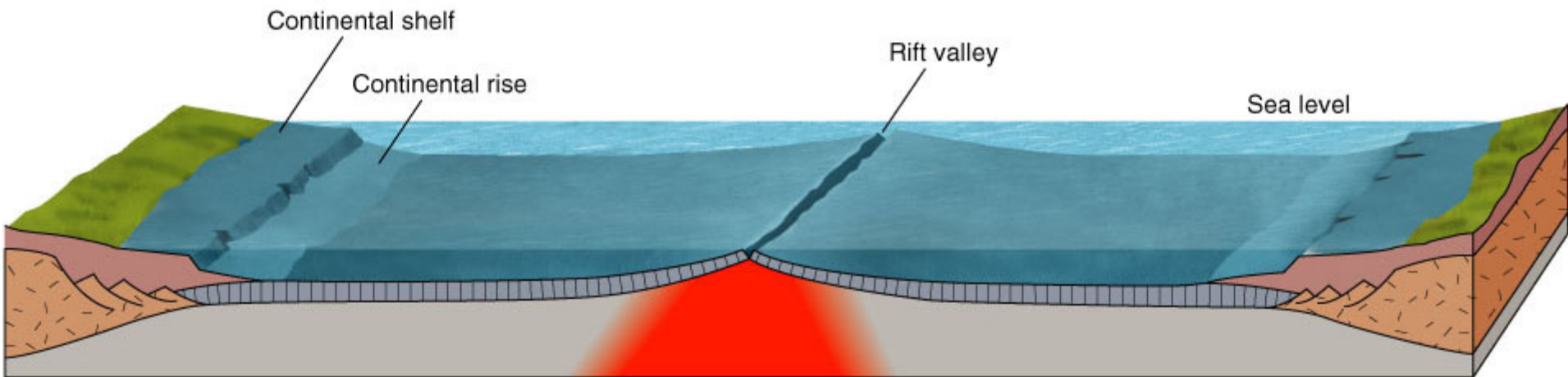
Plate Boundaries

- Divergent
- Convergent
- Transform

Divergent Boundary

- A fault where the two plates are moving away from each other. Earth quakes and volcanoes form along this boundary.

Divergent Boundaries





Convergent Boundary :aka a slow collision

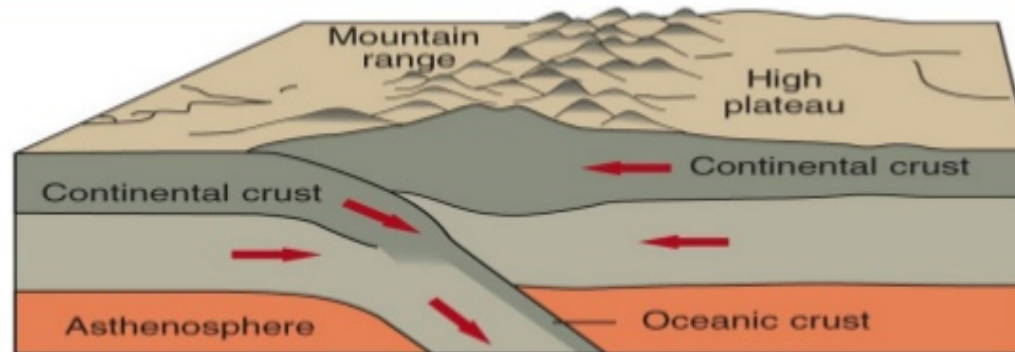
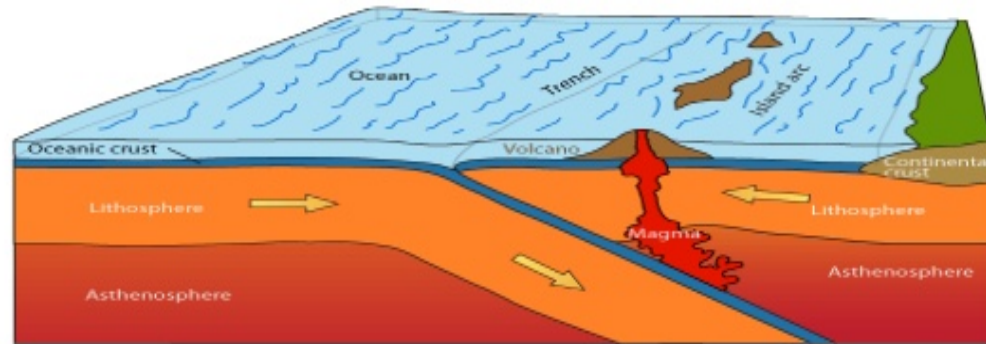
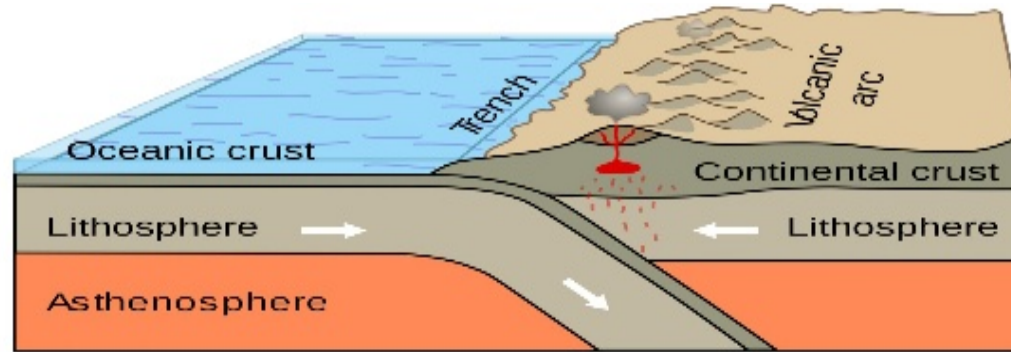
When two separate plates are pushing into each other...a collision of two plates occurs.

Can create deep ocean trenches and volcanoes

Three Types of Convergent Boundaries

1. Ocean/Ocean Convergent Boundary
2. Ocean/Continental Convergent Boundary
3. Continental/Continental Convergent Boundary

CONVERGENT PLATES

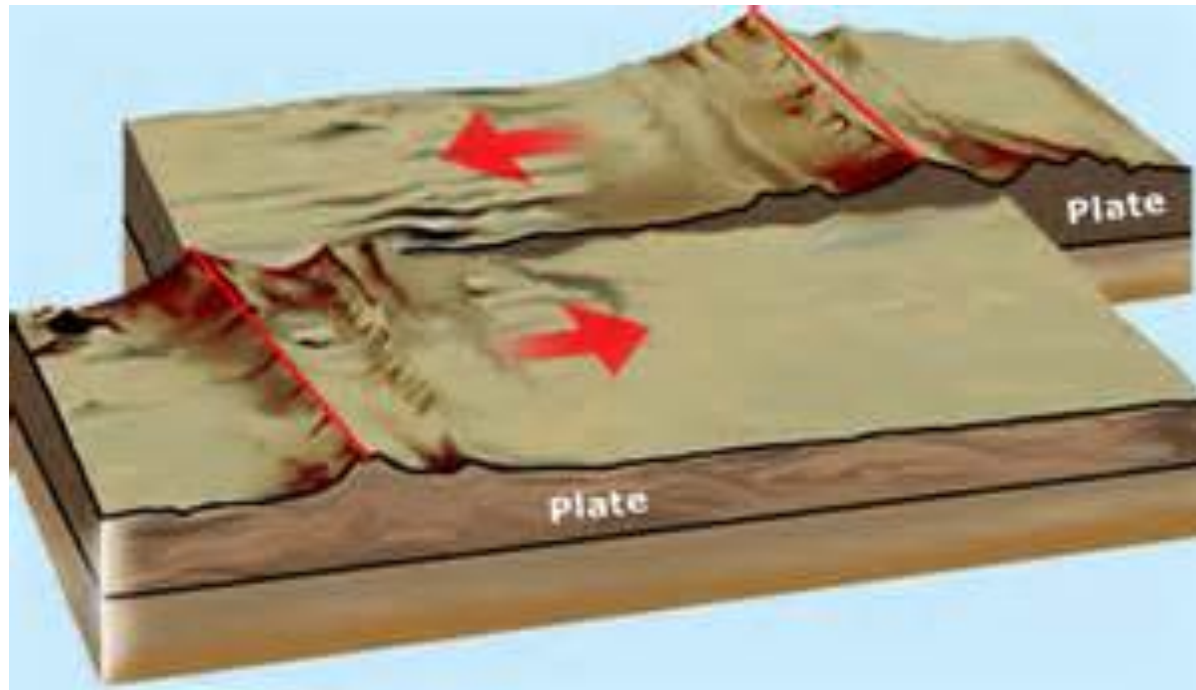




Transform Boundary

- Plates grinding past each other as they move in opposite directions horizontally.
- Most found on ocean floor, but a few occur on land (San Andreas fault zone in CA)
- Not as spectacular, not tearing or crunching nor destroying crust.
- Earthquakes are the result of this boundary...due to all the sliding.

Transform Boundaries





Output Activity Page 40

- Describe the process that causes movement of the plates and illustrate this process.