

A stylized globe of the Earth, colored in shades of blue. The globe is overlaid with several thick, yellow and green outlines that represent the boundaries of tectonic plates. These outlines are irregular and follow the general shape of the continents and ocean basins. The text "PLATE TECTONICS" is written in a bold, blue, sans-serif font across the center of the globe.

# PLATE TECTONICS



# The Theory

In 1910 **Alfred Wegener** begins to wonder....

What's the relationship?



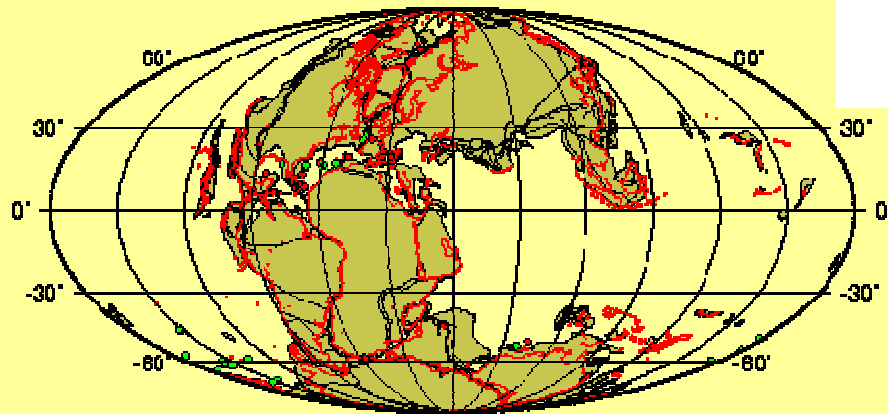
Perhaps all these pieces used to be connected.

**Continental drift**=slow movement over Earth's surface

It all started 300 million years ago.....



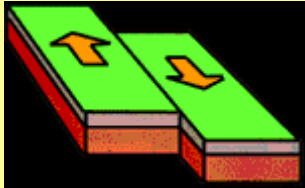
# Supercontinent

***Pangea*** -  
(Greek) *all lands*



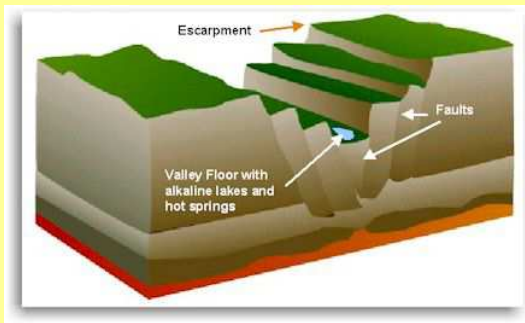
150 My Reconstruction

↔ Tens of Millions of years!

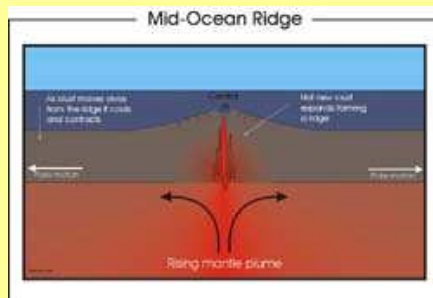
<b>A</b> <b>Divergent</b>	<b>B</b> <b>Convergent</b>	<b>C</b> <b>Transform</b>
 <ul style="list-style-type: none"><li>•plates are <b><i>moving apart</i></b></li><li>•new crust is created</li><li>•Magma is coming to the surface</li></ul>	 <ul style="list-style-type: none"><li>•plates are <b><i>coming together</i></b></li><li>•crust is returning to the mantle</li></ul>	 <ul style="list-style-type: none"><li>•plates are <b><i>slipping past each other</i></b></li><li>•crust is not created or destroyed</li></ul>

## A Divergent

Continental crust  
⇒ **rift valley**



Oceanic crust ⇒ mid-ocean ridge

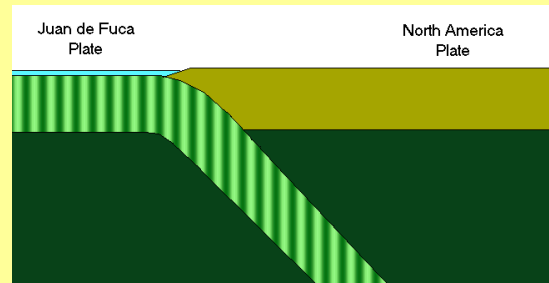


## B Convergent

2 continental plates ⇒  
**mountain range**



2 oceanic plates or  
oceanic + continental  
⇒ **subduction**

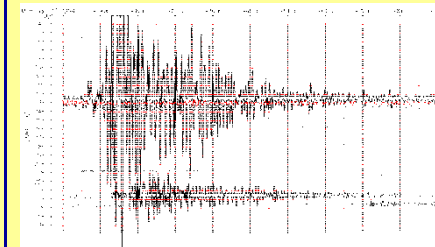


## C Transform

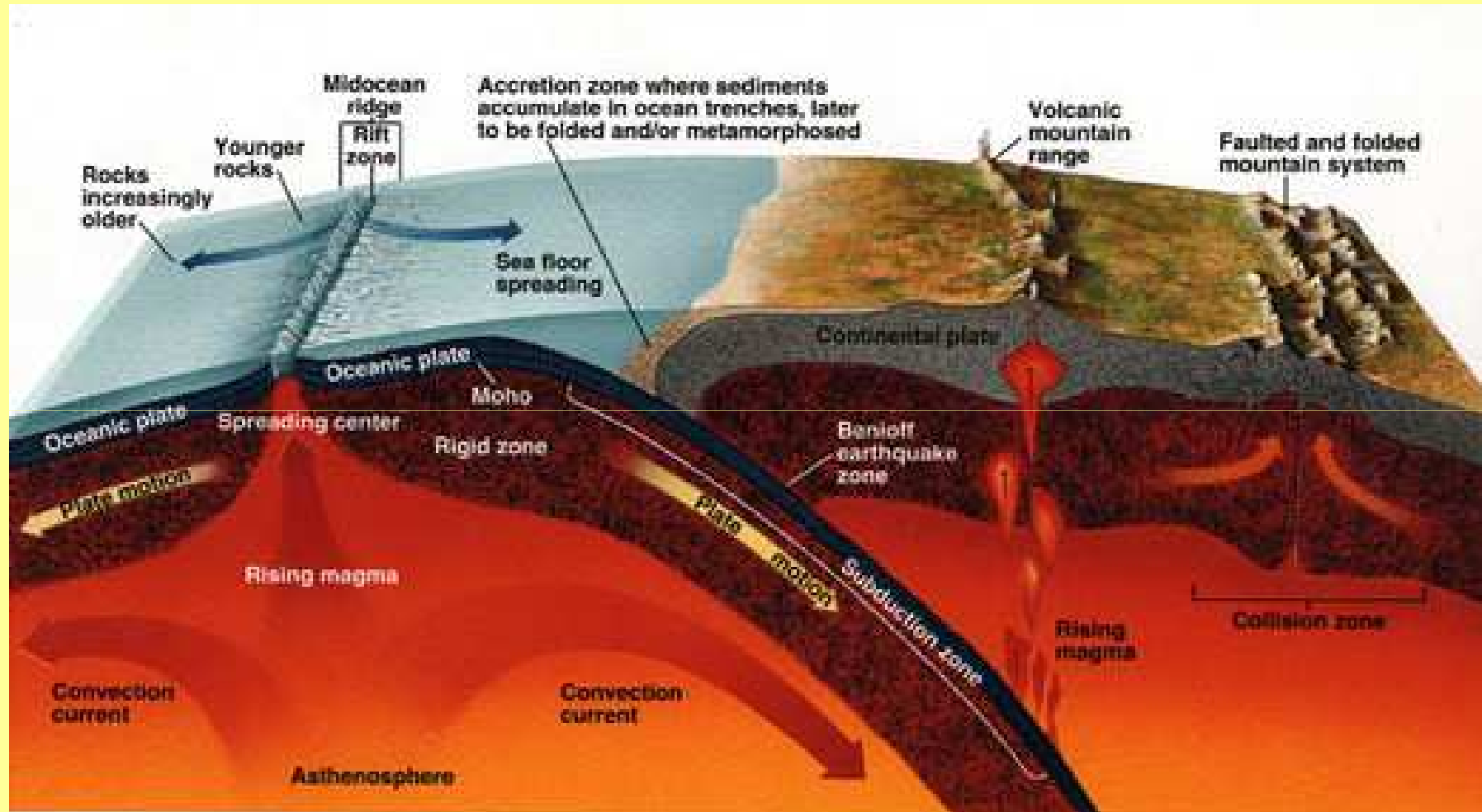
Plates move  
against each  
other

**Stress** builds up

Stress is released  
⇒ **earthquake**



# The Big Picture



# Homework- Vocabulary

convergent boundary

divergent boundary

transform boundary

subduction

mid-ocean ridge

continental crust

oceanic crust

mountain range

earthquake