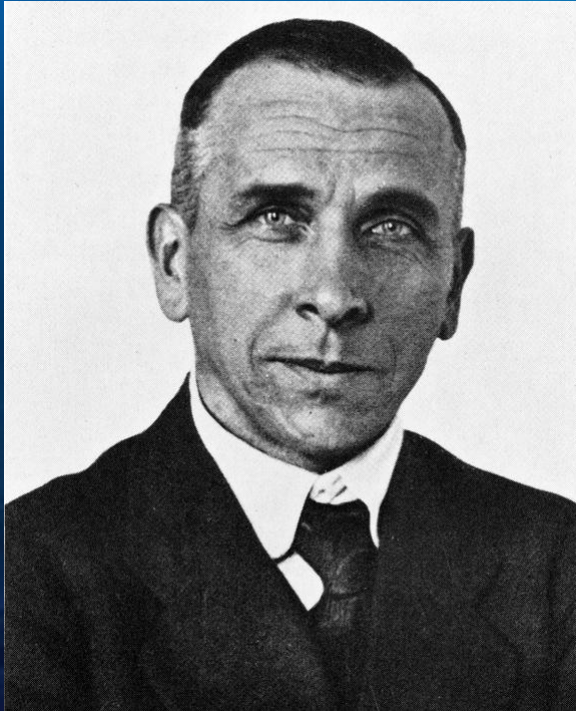


# **Land Unit: Plate Tectonics**

Cornell Notes

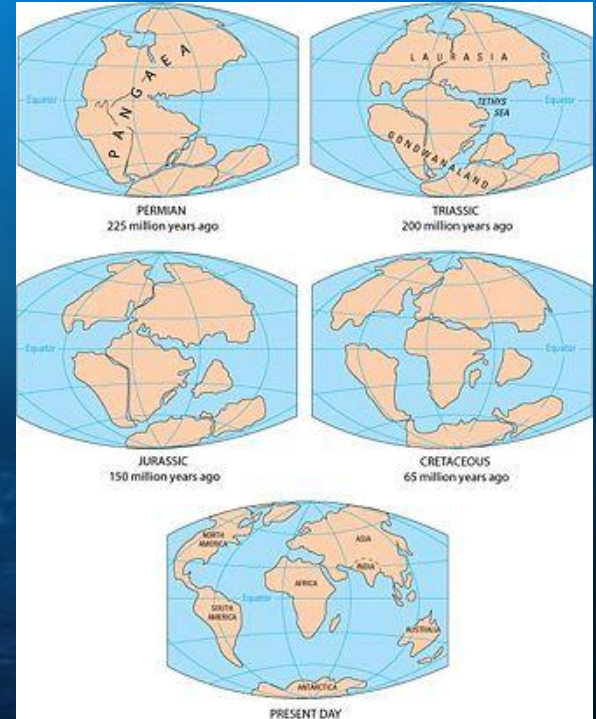
# Who is Alfred Wegener?

A German scientist who hypothesized the theory of continental drift.



# What is the Theory of Continental Drift?

A hypothesis that all the continents were once joined together in a single land mass called **Pangaea** and has since drifted apart.



# What evidence supports this hypothesis?

## 1. Land Features:

-He noticed that the mountain ranges on the continents of Africa and South America line up.

## 2. Fossils:

-**Fossils**-trace of an ancient organisms that has been preserved in rock.

-Dinosaur fossils have been found in landmasses separated by oceans.

## 3. Climate:

-Evidence of tropical plants has been found in the Arctic Ocean and glacier evidence in South Africa.

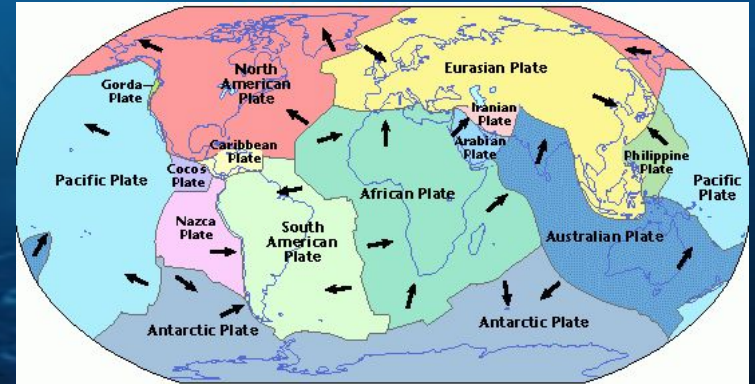


# Why wasn't Alfred Wegner's Theory Accepted?

- Alfred Wegner had a lot of evidence to support his theory.
- He could not explain how the plates moved.
- Because he could not explain how the plates moved, scientist did not accept his theory.

# What is the Theory of Plate Tectonics?

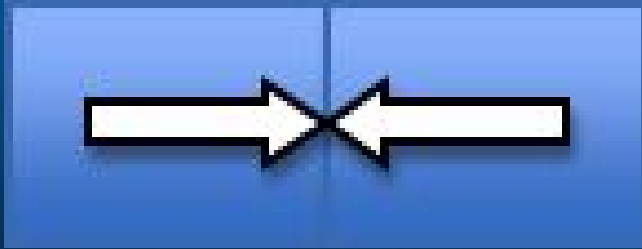
- Pieces of Earth's lithosphere are in slow, constant motion
- Movement is caused by convection currents in the mantle.
- Plates move in three types of behavior
- Tectonic plates are made of continental and oceanic crust



# What is a **convergent boundary** and where does it occur?

-Place where two plates come together, or converge.

-A “collision”



**-Forms mountains and volcanoes**

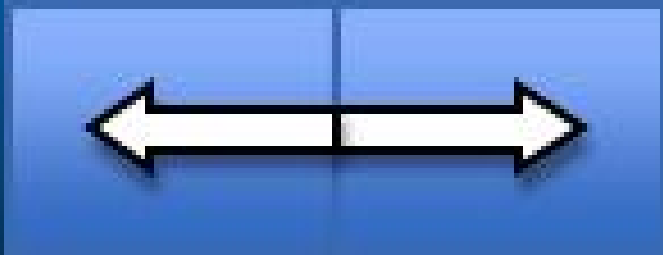
-When oceanic crust slips under continental crust: SUBDUCTION

-Subduction forms volcanoes

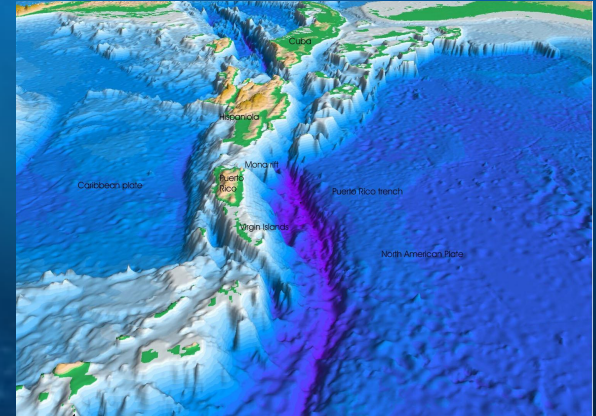


# What is a **divergent boundary** and where does it occur?

-Place where two plates spread apart; or diverge.



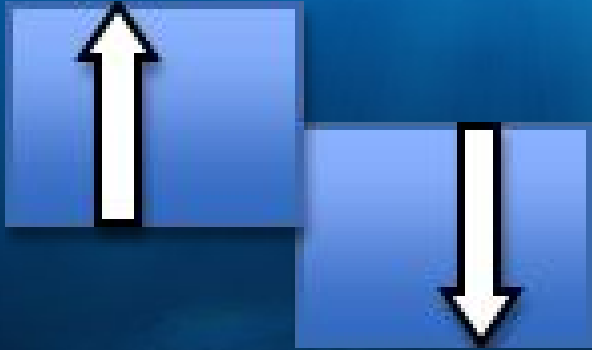
-Molten material moves up between the plates and **forms new ocean floor, rift valleys, ocean trenches.**





# What is a **transform boundary** and where does it occur?

Where two plates slide past each other in opposite directions.



**Earthquakes** occur when two plates slide past each other.