Pangaea: Introduction

Name _____

Instructions: Read through the introduction information about Pangaea. Then complete the "Fill In" questions below.

The Earth's crust is not a solid shell. It is made up of large, interconnecting pieces called *tectonic plates* that fit together like a puzzle. They move atop the underlying mantle, a thick layer of hot flowing rock called magma.

By examining evidence such as rock layers from different continents, the distribution of ancient fossils, and the physical shapes of continents, scientists have concluded that the Earth's continents were once all connected to form a "*supercontinent*" called ***Pangaea.*** This supercontinent was surrounded by an enormous ocean called the *Panthalassa Sea* which existed about 300 million years ago.

Pangaea Supercontinent

300 Million Years Ago

The name Pangaea comes from the ancient Greek words "*Pan*" meaning "whole" and "*Gaia*" meaning "land". Although Pangaea existed millions of years ago, it wasn't until 1915 that a German scientist named Alfred Wegener described the idea of "Continental Drift". In his theory, Wegener proposed that all the existing continents once formed one giant supercontinent and have since drifted apart to form their current arrangement.

Although Wegener's theory was not widely accepted at the time, he did have supporting evidence for his new ideas. The shapes of South America and Africa appeared as if they could fit together like a puzzle. Next, Wegener matched rock formations in North America and Europe, two continents that are now separated by the Atlantic Ocean.

Last, Wegener documented numerous fossils that only appear at specific locations, such as Africa and South America, two more continents which are today separated by the Atlantic Ocean. Since Wegener's theory of continental drift in 1912, scientists have collected more information and research to support his idea of Pangaea. Wegener's theory of continental drift allowed scientists to develop our modern Plate Tectonic Theory, which is the foundation of many geologic processes on the earth.

Complete the "Fill In" questions below using information from the sections above.

1- The earth's crust is broken into large pieces called _____ plates.

2- The thick layer of hot magma is called the _____.

3- Once all the continents were connected to form a giant _____.

4- _____ is the name given to the Earth's ancient supercontinent.

5- The Greek word "Pan" means _____ .

6- The ancient landmass of Pangaea was surrounded by a giant sea called _____

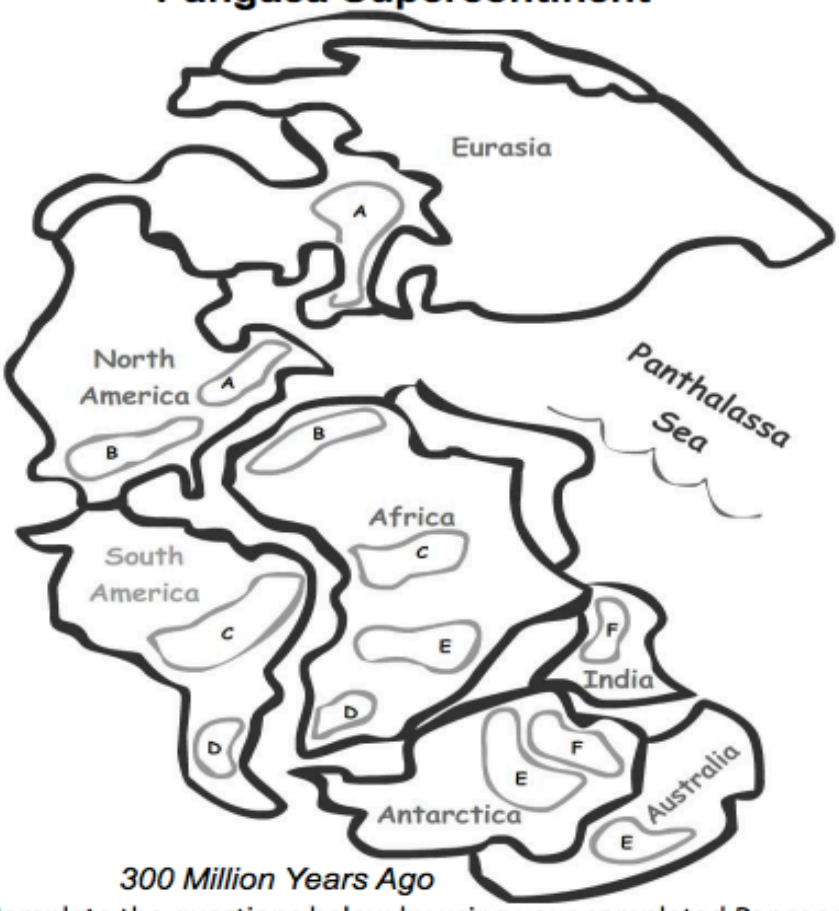
7- Alfred Wegener was a German scientist who proposed the Theory of _____ Drift.

8- The modern idea of Continental Drift is now referred to as the _____Theory.

Scientists, including Alfred Wegener, have collected fossil and rock evidence that supports the existence of the ancient supercontinent Pangaea. Many related rocks and fossils have been found around the world which are now separated by vast oceans. By using this evidence, scientists can see which continents were once connected in this giant supercontinent.

Create your own color key by selecting colors for your evidence color key below.
Then color the Pangaea lettered sections by using your evidence color key as a guide.

Pangaea Supercontinent



300 Million Years Ago

Evidence Color Key

A = ☐ *Rock Evidence*

B = ☐ *Rock Evidence*

C = ☐ *Fossil Evidence*

D = ☐ *Fossil Evidence*

E = ☐ *Fossil Plant Evidence*

F = ☐ *Fossil Evidence*

Complete the questions below by using your completed Pangaea map from above.

1- Which continents contain Rock evidence examples?

_____ _____ _____

2- Which lettered fossil evidence is on 3 different continents? _____

3- Which continents contain Fossil Plant Evidence?

_____ _____ _____

4- Which continent contains 4 different lettered evidence examples ? _____