

Name: _____ Date: _____ Period: _____

The Drifting Continents

In early 1915, the German scientist **Alfred Wegener** developed a theory that the continents once formed a giant supercontinent that he called **Pangaea**. He speculated that Earth took this form about **245 million years ago**, during the Triassic period of the Mesozoic era. (The Mesozoic is the era in which dinosaurs lived.) A few years after Wegener proposed his theory, South African geologist **Alexander Du Toit** further theorized that Pangaea divided into two supercontinents 205 million years ago. Du Toit called the northern supercontinent **Laurasia** and the southern one **Gondwanaland**. The scientists used many kinds of evidence to advance their theories. They found similar fossil remains of plants and animals on different present-day continents. The scientists hypothesized that the continents were once connected.

In this activity, we will attempt to use Wegener and Du Toit's evidence to recreate the southern part of Pangaea, called Gondwanaland. Gondwanaland was made up of the present-day land-masses of South America, Africa, Antarctica, Australia, India, and Madagascar.

Step 1: Cut out the continents found on the next page. Take a moment and try and assemble the pieces in a logical way, just like putting a puzzle together. When you are done, let me know so I can see how you did.

Step 2: Using the provided maps, label the locations of the four fossils on your continents. Use the following map key:





Glossopteris = Mark with a green "G"

Cynognathus = Mark with an orange "C"

Lystrosaurus = Mark with a red "L"

Mesosaurus = Mark with a blue "M"

Step 3: Now, using the fossil evidence to assemble the continents. This time, tape or glue down the continents assembled as Gondwanaland. This is how Wegener and Du Toit were able to theorize what these ancient continents looked like.

Name	Artists Conception	Type of Organism	Fossils Discovered Only in...
Glossopteris		A fern	<ul style="list-style-type: none"> ▸ Southern tip of India near Madurai ▸ Prince Harald Coast, Antarctica ▸ Southern tip of Madagascar ▸ Oates Coast, Antarctica ▸ Southeastern Australia (near Melbourne)
Cynognathus		A Land Reptile	<ul style="list-style-type: none"> ▸ Southeastern Argentina (near Bahia Blanca) ▸ Southwestern South Africa (near Cape Town)
Lystrosaurus		A Land Reptile	<ul style="list-style-type: none"> ▸ Wilhelm II Coast, Antarctica ▸ Madagascar, north of Antananarivo ▸ Central India (between Bangalore and Hyderabad) ▸ Eastern Tanzania (near Dar es Salaam)
Mesosaurus		A Freshwater Reptile	<ul style="list-style-type: none"> ▸ Eastern Brazil (near Salvador) ▸ Cameroon, West Africa

Name: _____ Date: _____ Period: _____

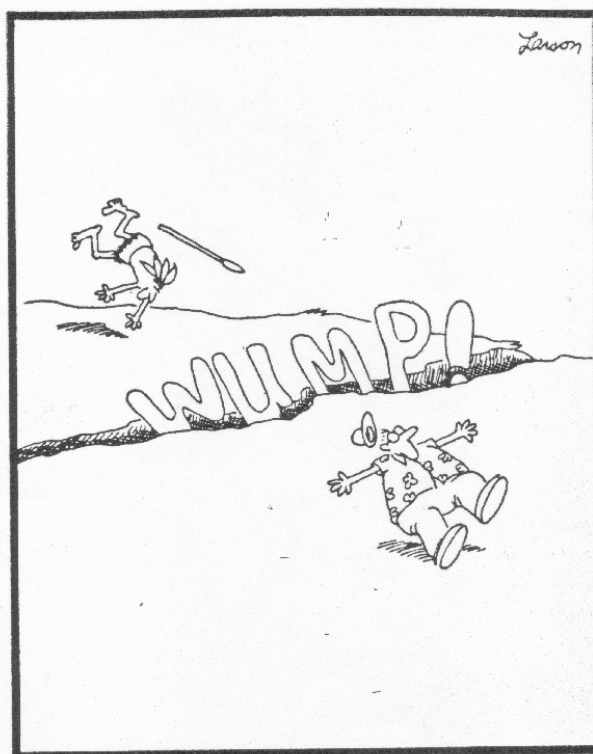


Conclusion Questions:

1. Explain how the discovery of certain fossils in certain locations supports the idea of Continental Drift.

2. Coal (formed from compressed tropical plants) and petrified Palm Trees (fossilized tropical plants) have been found in Antarctica. How do these observations support Continental Drift?

3. Despite the convincing evidence provided by Wegener and Du Toit, many people did not believe Continental Drift had been occurring. Why would people be skeptical?



Continental drift whiplash