

# PANGAEA

Scientists now believe that about 250 million years ago, a supercontinent known as Pangea existed. This supercontinent was made up of all the major continents; Eurasia, North America, South America, Africa, Antarctica, Australia and India. Scientist believe that plate tectonics, or the movement of land, are the reason for the separation of the continents as we know them today.

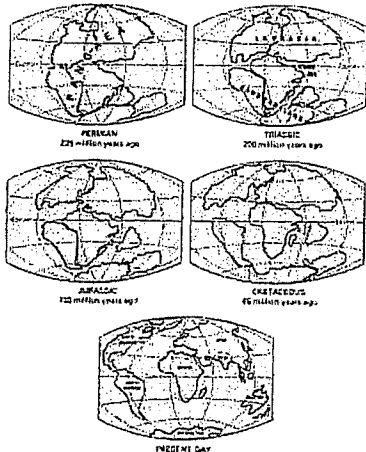
## Important People

**Alfred Wegener:** In 1915, the German geologist and meteorologist Alfred Wegener first proposed the theory of continental drift, which states that parts of the Earth's crust slowly drift atop a liquid core. The fossil record supports and gives credence to the theories of continental drift and plate tectonics.

**Edward Suess:** Edward Suess was an Austrian geologist who first realized that there had once been a land bridge between South America, Africa, India, Australia, and Antarctica. He found the same type of fossils in opposite parts of the world. This meant that at one point the different areas had to be close enough together that the same specimens would fossilize there.

## Plate Tectonics

Scientists believe that plate tectonics are the reason for the continental shift that has occurred over time.

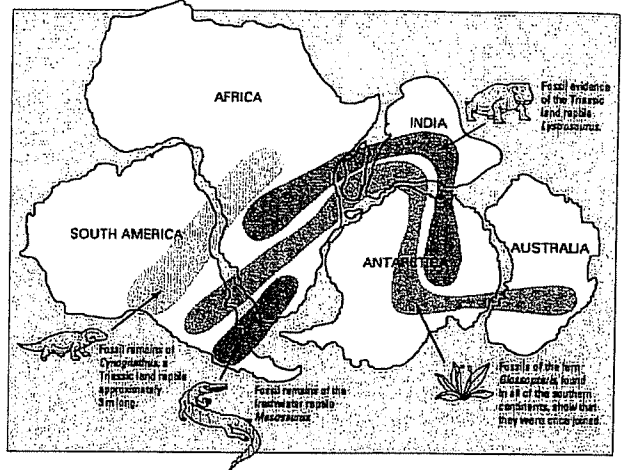


## Questions

1. Who was the geologist that first proposed the theory of continental drift?
2. What is the reason for continental drift?
3. Who was the geologist that discovered the same fossils in different parts of the world?
4. Why was the discovery of different fossils so significant?

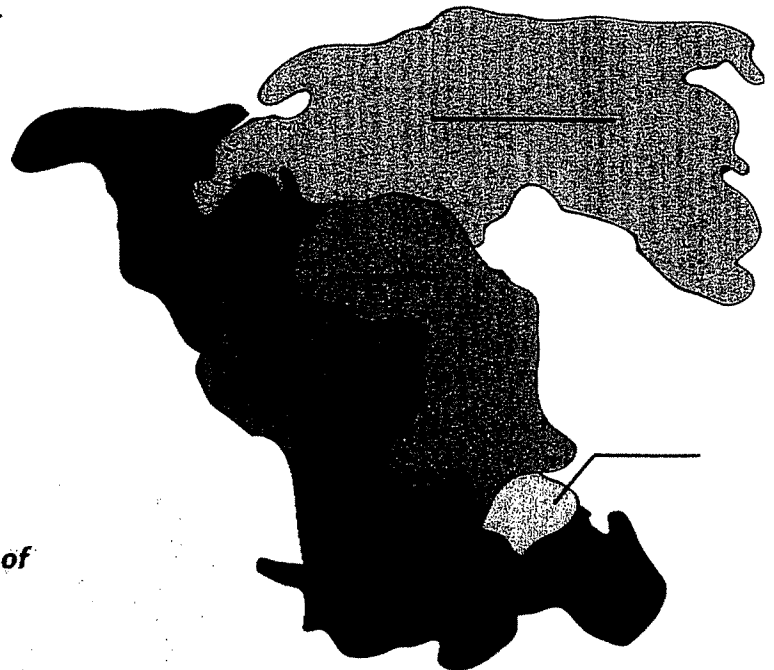
## Fossils

The discovery of similar fossils on different continents helped to develop the idea of Pangea.



## Continents

Label each continent that Pangea was made up of.





## A Plate Tectonics Puzzle

Solve the puzzle to discover what the Earth looked like 220 million years ago.

1. What's the code? Use the legend to identify the symbols on each island or continent.
2. Puzzle me this. Look at the shapes of continents and islands. What landmasses seem to fit together?
3. Let's rock! Examine the evidence and try to match up landmass boundaries that show similar rock strata, fossilized desert belts, and dinosaur fossils.
4. Hold that Pose. Look over the arrangement of the continents and islands and decide if the position of any of them should change. When you are satisfied with your map of Pangaea, tape or glue it down on the world map.

### Did You Know?

- Tectonic plates are made of both continental and oceanic crust. The land that we see is the continental crust, about 30 kilometers (19 mi) thick. Under the sea, the heavier oceanic crust is much thinner, about 8 to 10 kilometers (5 to 6 mi) thick.
- Plates move about 8 centimeters (3 in) per year. That's about as fast as a fingernail grows in a year!
- The tallest mountains in the world are still growing. About 60 million years ago, the Himalayan Mountains formed when the Indian Plate crashed into the Eurasian Plate. Today the two plates are still colliding and the Himalayas continue to rise.
- Los Angeles sits on the Pacific Plate that is moving northwest and San Francisco sits on the North American Plate that is moving southeast. Moving towards each other at the rate of 5 centimeters (2 in) a year, someday these two cities may be neighbors!



# A Plate Tectonics Puzzle

## LEGEND

1 Europe & Asia

4 Africa

7 Australia

basalt

Plateosaurus

2 North America

5 India

landmasses  
BELOW sea level

desert

Phytosaur

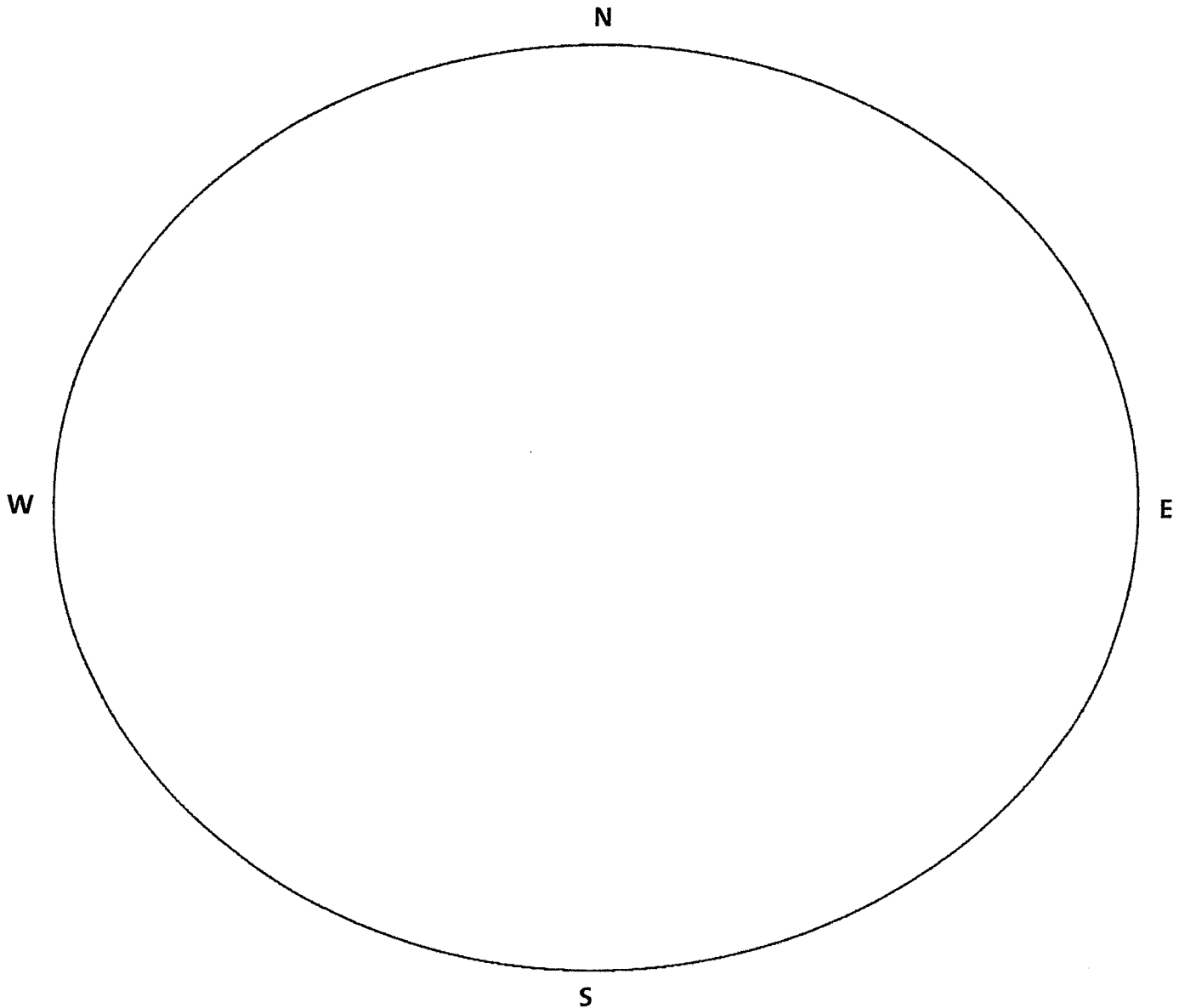
3 South America

6 Antarctica

landmasses  
ABOVE sea level

amphibian

Rhynchosaur





# A Plate Tectonics Puzzle

## LANDMASSES TO CUT OUT

