# Continental Drift

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# Introduction

- Continental Drift is the theory of how plates move and where they go. It was created by Alfred Wegener.
- He noticed certain things about the world using maps such as how the east side of South America fit perfectly into the west side of Africa like a jigsaw puzzle.
- Plate tectonics is the study of how the plates move.

# Alfred Wegener

- Alfred Wegner founded the theory of continental drift in 1912 but it wasnt excepted globally until the early 1950's.
- He froze to death on a polar expedition. It was 60 degrees centigrade at the time and his body was found buried in the snow in 1931.
- He noticed the fact that the continents fit together like one giant jigsaw puzzle and hence came continental drift.

# Continental Drift

- The theory of continental drift and plate tectonics was created by Alfred Wegener.
- The lithosphere is a semi-molten layer of rock that hasnt completely melted yet. The plates float on this layer. As magma rises from the core, it cools. It then sinks back down to the core and heats up again. As it does this, the plates move with it.
- Pangaea consisted of all the continents combined to form one major super continent and due to continental drift, they split apart and now exist in the form they are today.

# Evidence of Continental Drift

- Fossils from West Africa were discovered in South America roughly around the time that Alfred predicted the supercontinent split apart. Considering that these animals couldn't swim or fly, they had to have lived together on the one continent.
- Other evidence such as plant fossils that could only grow in a certain climate were found in both continents aswell. Tropical plants were even discovered in Antartica. This suggests that Antartica was connected with Australia millions of years ago.
- The final piece of evidence are glacial sediments. These suggest the existence of Gondwana Land which is the second half of the super continent as Pangaea began to split apart.

# Jigsaw Puzzle!?

- A very important form of evidence is the fact that almost all of the worlds continents and isolated countries fit together like a giant jigsaw puzzle.
- For example, West Africa fits together with east South America like a jigsaw. Madagascar fits perfectly into the east side of Africa and all the landmasses in Asia fit together.

# Fossils!

- Dinosaurs such as the mesosaurus were discovered both in South America and Africa. This dinosaur in particular couldn’t swim even though it was a form of the crocodile, so it was impossible for the dinosaur to get from Africa to South America like that.

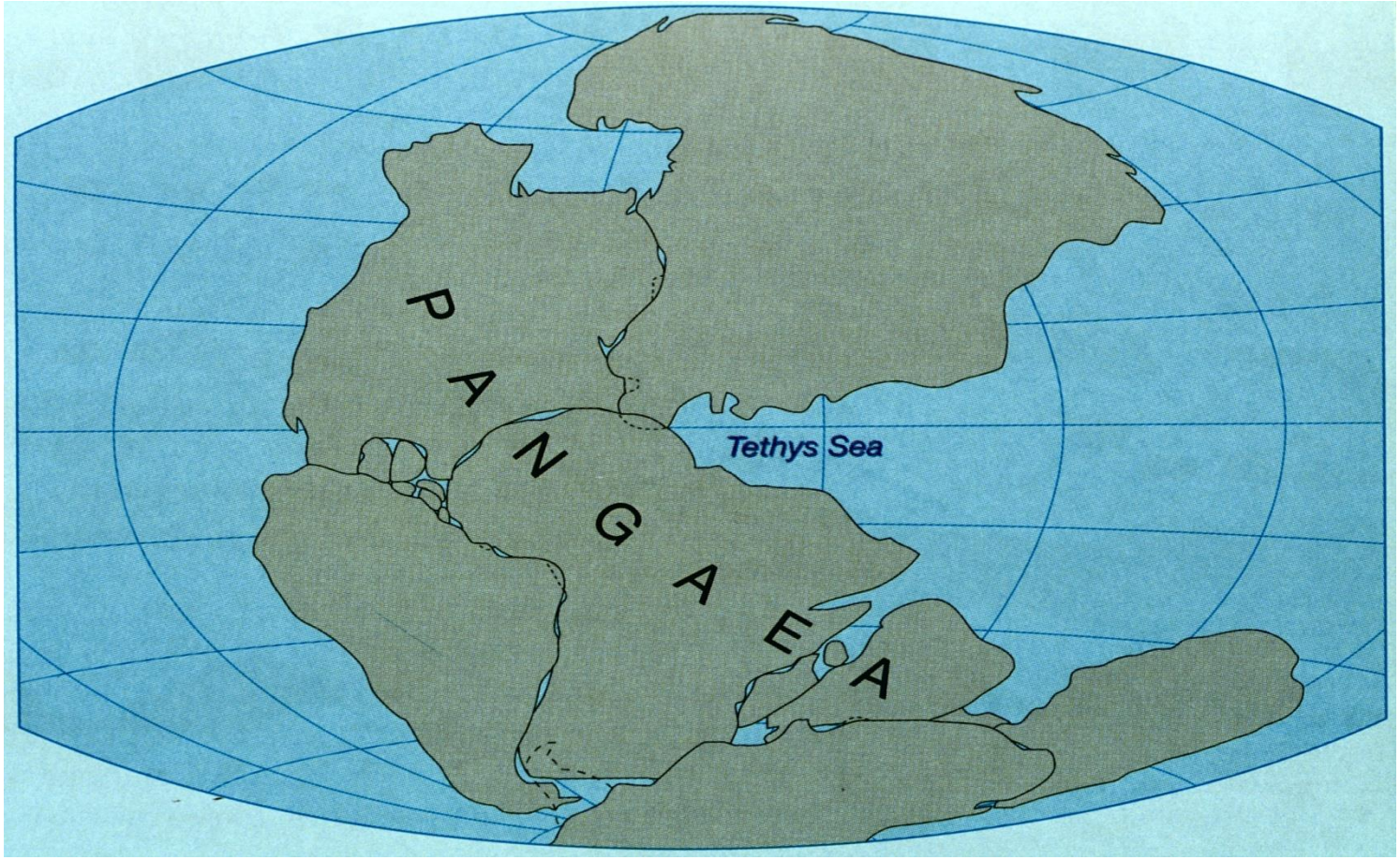
# Plant Fossils!

- Tropical plants were discovered in Antartica that need a very warm climate to grow such as an African tropical climate. From common knowledge anyone would know that it's almost impossible for plants like that to grow in the Arctic. This suggests that Antartica was once combined with Africa.

# Polar Dinos found in Aussi!

- Arctic dinosaurs were also discovered in Australia. The same fossils were discovered in both Continents. If Antartica was always positioned at the South Pole then it would have been almost impossible for arctic creatures to swim from there to Australia.

# The world 250 millions years ago.



# The World today!

# The world 250 million years from now!

- Geologists and many other scientists that study the planet predict that in millions of years, the continents might move back together like Pangaea once was.

# The world 250 millions years from now!