

World

A large blue question mark is positioned on the left side of a light blue rectangular box. To its right, the text "How do moving plates change the Earth's crust?" is written in black. In the bottom-left corner of the box is a small, stylized globe of the Earth with green continents and blue oceans.

Feb 19-3:52 PM

Drifting Continents

Lesson 1



What was Wegener's hypothesis about the continents?



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What was Wegener's hypothesis about the continents?

Alfred Wegener (VAY-guh-ner)

German Scientist

1910

Curious why some of the continents could fit together

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Wegener's hypothesis was that all the continents were once joined together in a single landmass and have since drifted apart

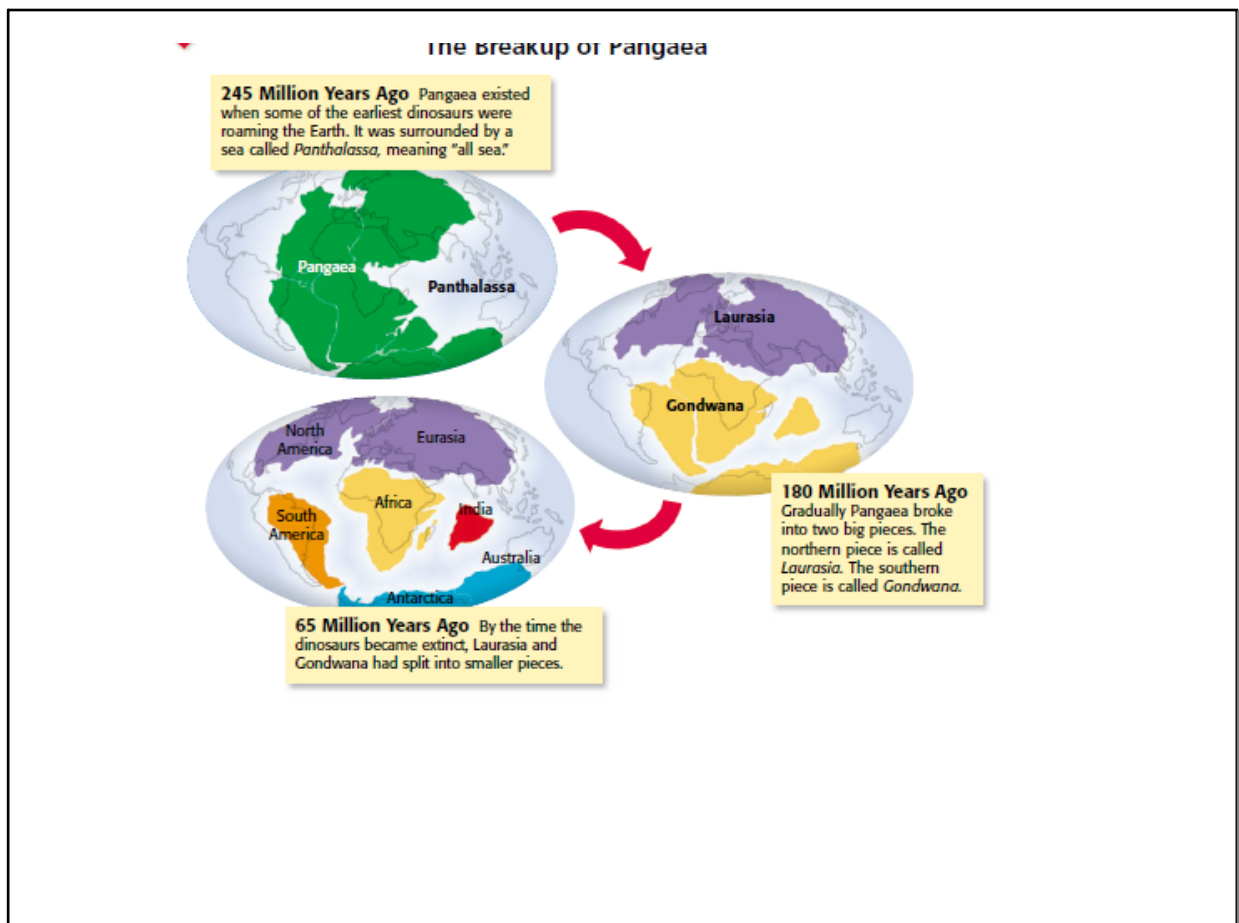
Idea is know as continental drift

300 million years ago, super continent Pangaea existed

Over tens of millions of years, continents separated and moved to present locations

1915- Wegener published book called "The Origin of Continents and Oceans"

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Evidence from Land Features

Land features provided evidence for Wegener
mountain ranges in Africa and South America line up
coal fields in Europe and North America in line

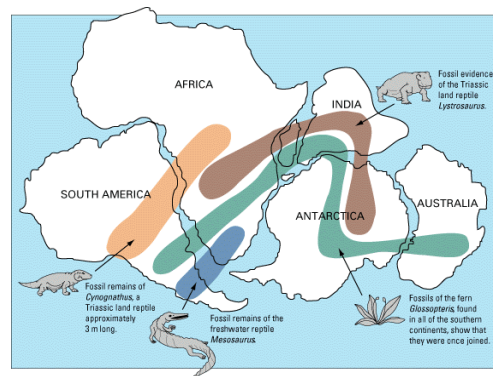
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Evidence from fossils

Wegener used fossils to support his hypothesis
Glossopteris- fernlike plant
lived 250 million years ago
found in Africa, South America, India and



Antarctica



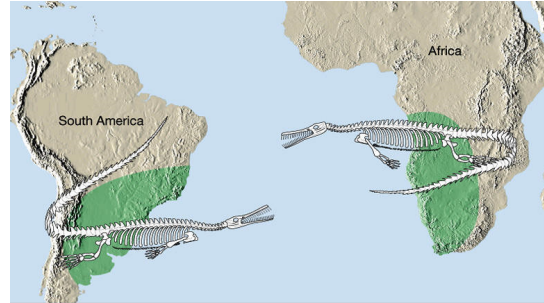
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Mesosaurus and Lystrosaurus

fresh water reptiles

found in South America and Africa

couldn't swim the ocean



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Evidence from Climate

Wegener used knowledge of climate change

continents closer to equator = warmer

continents closer to poles = colder

Continents carry fossils and rocks that form in all its locations

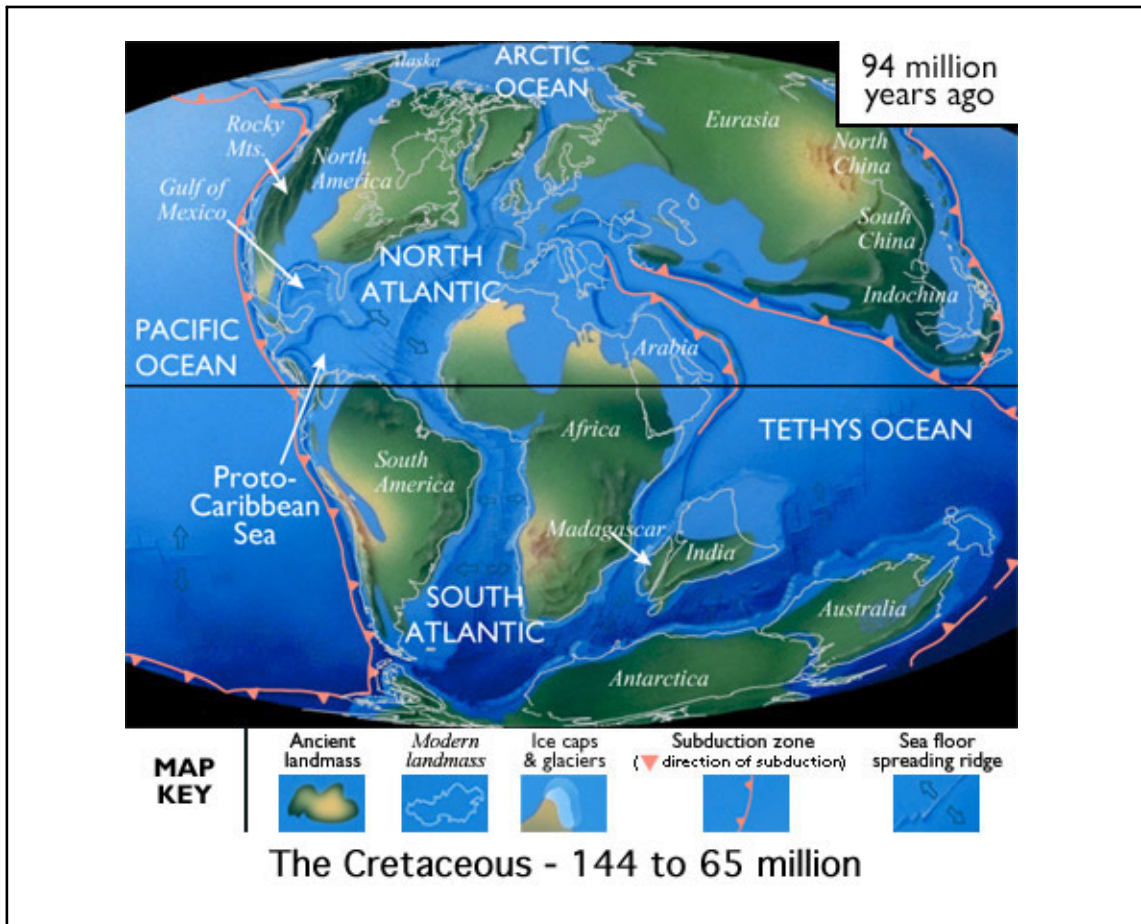
fossils of tropical plants

found in Spitsbergen (island in Arctic Ocean)

lived 300 mya

must have been a warmer climate than area moved

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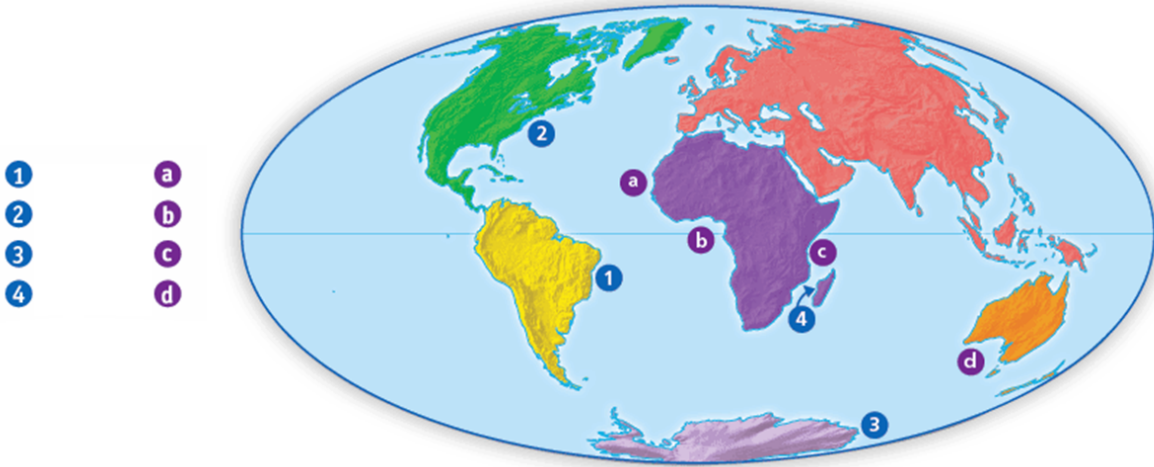
Wegener's hypothesis rejected

He attempted to explain how continental drift took place
 couldn't provide satisfactory answers
 most geologists of his time rejected idea

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Piecing It All Together

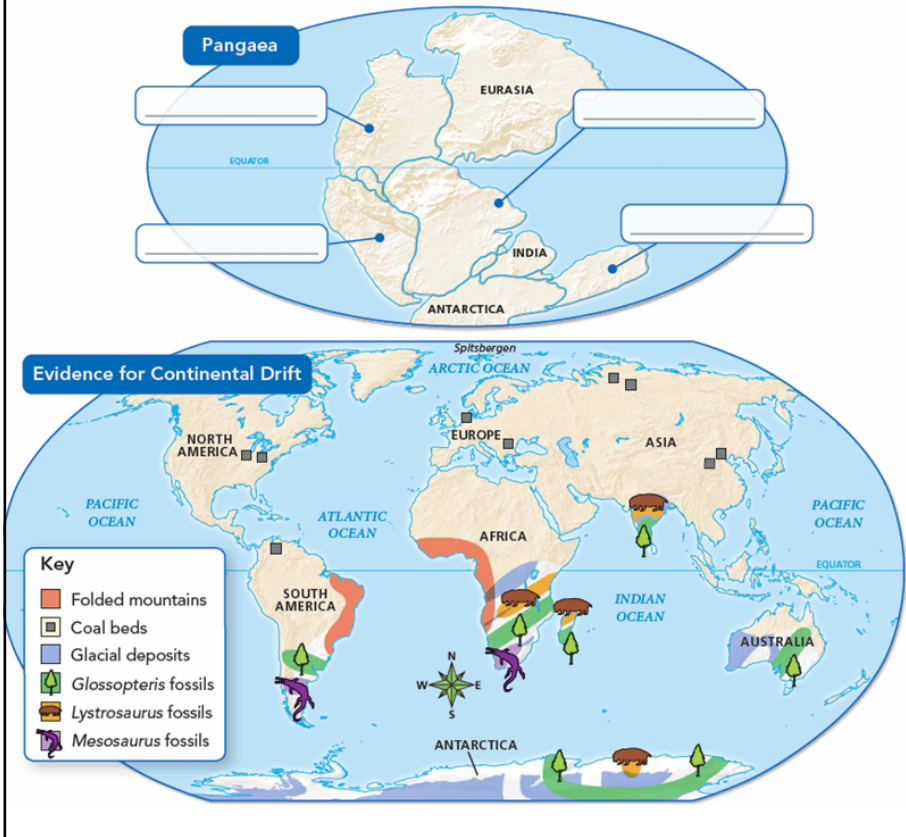
The coastlines of some continents seem to fit together like a jigsaw puzzle.



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Pangaea and Continental Drift

Many types of evidence suggest that Earth's landmasses were once joined together



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Lesson 1 - Drifting Continents

[redacted] hypothesis was that [redacted] the
[redacted] were once [redacted] in a [redacted]
landmass and have since [redacted]

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Attachments



plate movement