

Chapter 9 Plate Tectonics

Section 9.1 Continental Drift

This section explains the hypothesis of continental drift and the evidence supporting it.

Reading Strategy

Summarizing Fill in the table as you read to summarize the evidence of continental drift. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Hypothesis	Evidence
Continental Drift	a. continental puzzle
	b.
	c.
	d.

The Continental Puzzle

1. Wegener called Earth’s ancient supercontinent _____.

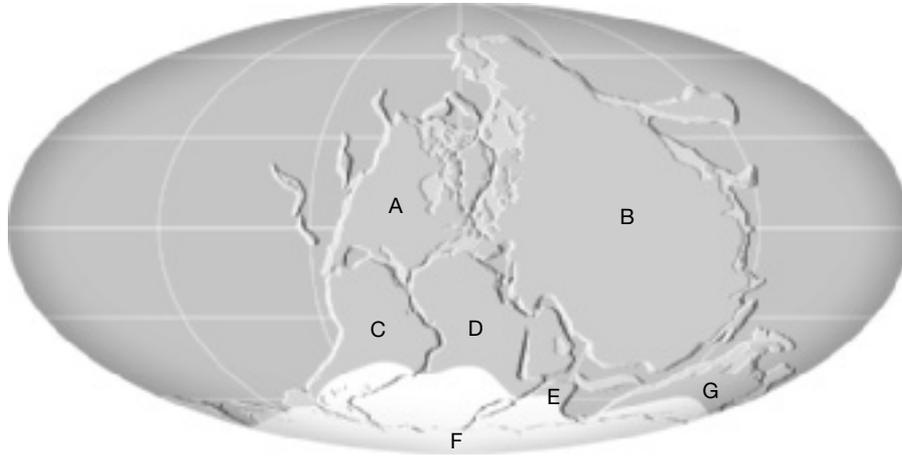
Evidence for Continental Drift

Match each example of continental drift with the type of evidence it is.

Example	Evidence for Continental Drift
_____ 2. Similar mountain chains run through eastern North America and the British Isles.	a. rock types and structures
_____ 3. Land areas that show evidence of ancient glaciation are now located near the equator.	b. matching fossils
_____ 4. The Atlantic coastlines of South America and Africa fit together.	c. continental puzzle
_____ 5. Remains of <i>Mesosaurus</i> are limited to eastern South America and southern Africa.	d. ancient climates
6. _____ evidence for continental drift includes several fossil organisms found on different landmasses.	
7. Is the following sentence true or false? If the continents existed as Pangaea, the rocks found in a particular region on one continent should closely match in age and type those in adjacent positions on the adjoining continent. _____	

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8. 🗎 The figure shows Earth’s ancient supercontinent as it appeared about 300 million years ago, according to Alfred Wegener. Write the letter that represents each of the following present-day continents.



- | | |
|-----------------------|---------------------|
| _____ Antarctica | _____ North America |
| _____ Europe and Asia | _____ Africa |
| _____ South America | _____ Australia |
| _____ India | |

Rejection of Wegener’s Hypothesis

9. Circle the letter of an example of one objection that critics had about Wegener’s continental drift hypothesis.
- Wegener could not provide any evidence to support continental drift.
 - Wegener could not propose a mechanism capable of moving the continents.
 - Wegener’s idea of the mechanism capable of moving the continents was physically impossible.
 - Wegener’s fossil evidence was not accurate.
10. Is the following sentence true or false? Most scientists in Wegener’s time supported his continental drift hypothesis.

11. Is the following sentence true or false? Wegener proposed that during continental drift, larger continents broke through the oceanic crust. _____
12. By 1968, data collected about the ocean floor, earthquake activity, and the magnetic field led to a new theory called _____.
13. The new theory that replaced Wegener’s hypothesis explained most geologic processes, including the formation of _____.