

Use with textbook pages 506–513

## Evidence for continental drift

### Vocabulary

ancient glaciers	mountain ranges
fossils	Pangaea
geological structures	plate tectonic theory
hot spot	spreading ridge
magma	supercontinent
magnetic reversal	tectonic plates
Mid-Atlantic Ridge	

Use the terms in the vocabulary box to fill in the blanks. Each term may be used only once.

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- Alfred Wegener proposed that, millions of years ago, all the continents were joined as a \_\_\_\_\_.
- The name given to this giant land mass is \_\_\_\_\_.
- Wegener compared \_\_\_\_\_, \_\_\_\_\_ and evidence of \_\_\_\_\_ on different continents.
- Since rocks found in Newfoundland are the same type and age as rocks found in Greenland, Ireland, Scotland, and Norway, it would appear that the world's major \_\_\_\_\_ were continuous when the continents were joined.
- The surface of the Earth is broken into large, rigid, movable \_\_\_\_\_ that move over a layer of partly molten rock.
- In the \_\_\_\_\_, scientists found that as distance increases from the centre of the ridge, the rocks are older and the ocean sediment is thicker.
- Using a magnetometer, scientists found a pattern of \_\_\_\_\_ in the iron-containing minerals on both sides of the Mid-Atlantic Ridge.
- Harry Hess suggested that \_\_\_\_\_ rises because it is less dense than the material that surrounds it.
- At a \_\_\_\_\_ the magma breaks through the Earth's surface, where it cools and hardens, forming a new sea floor.
- J. Tuzo Wilson suggested that chains of volcanic islands were formed when a tectonic plate passed over a stationary \_\_\_\_\_.
- The \_\_\_\_\_ is the unifying theory of geology.

Name \_\_\_\_\_

Date \_\_\_\_\_

**Applying Knowledge**

**Section 12.1**

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# Theories related to continental drift

Total 8 marks

Various pieces of evidence have been gathered by scientists to explain the underlying theories of geology. Alfred Wegener, Harry Hess, and J. Tuzo Wilson are some of the scientists who proposed explanations of phenomena they had observed.

Fill in the following table comparing the main points of evidence presented by each theory.

<p><b>Continental drift</b> Proposed by: _____ Main points: _____ _____ _____ _____ _____</p>	<p><b>Paleomagnetism</b> Main points: _____ _____ _____ _____ _____</p>
<p><b>Sea floor spreading</b> Proposed by: _____ Main points: _____ _____ _____ _____ _____ _____ _____ _____ _____</p>	<p><b>Plate tectonic theory</b> Proposed by: _____ Main points: _____ _____ _____ _____ _____ _____ _____ _____ _____</p>