The Fossil Record

Understanding Main Ideas

Use the figure below to answer questions 1 and 2. Write your answers on a separate sheet of paper.

1. What is shown in the figure above?
2. What evidence do scientists use to place events on this time line?

Answer the following questions on a separate sheet of paper.

3. Describe the process by which most fossils form.
4. Which is older, a fossil in a sedimentary rock layer at the bottom of a canyon or a fossil in a sedimentary rock layer at the top of a canyon? Explain.
5. How do scientists use radioactive elements to determine the actual age of fossils?
6. What is the fossil record, and why is it incomplete?

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition on the line beside the term.

7. relative dating a. a species that has no living members
8. half-life b. the preserved remains or traces of an organism that lived in the past
9. gradualism c. the theory that species evolve during short periods of rapid change
10. absolute dating d. a way to determine the actual age of fossils
11. extinct e. rock made of hardened sediment
12. sedimentary rock f. the time it takes for half of a radioactive sample to decay
13. fossil g. the theory that evolution occurs slowly but steadily
14. punctuated equilibria h. a way to determine which of two fossils is older