

Directed Reading B *continued*

MODERN GEOLOGY—A HAPPY MEDIUM

9. During the late 20th century, scientists challenged uniformitarianism again. What do these scientists believe about catastrophes?

10. What present-day evidence suggests that the extinction of dinosaurs was the result of a catastrophic event?

PALEONTOLOGY—THE STUDY OF PAST LIFE

Match the correct definition with the correct term. Write the letter in the space provided.

_____ **11.** the study of past life using fossils

_____ **12.** scientists who study past life using fossils

_____ **13.** remains of organisms preserved by geologic processes

a. paleontology

b. fossils

c. paleontologists

Directed Reading B

Section: Relative Dating (pp. 238–245)

- _____ 1. Determining the age of objects or events in relation to other objects or events is called
- relative sequencing.
 - relative dating.
 - relative history.
 - relative geology.

THE ROCK CYCLE

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|---|---------------------|
| _____ 2. forms from rock fragments | a. igneous rock |
| _____ 3. forms when magma cools | b. metamorphic rock |
| _____ 4. forms when solid rock changes to another type of rock due to temperature or pressure changes | c. sedimentary rock |

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|---|------------------|
| _____ 5. Sediment is hardened into sedimentary rock. | a. weathering |
| _____ 6. This moves sediment from one place to another. | b. erosion |
| _____ 7. Rock is broken down into smaller pieces. | c. deposition |
| _____ 8. Material is laid down or dropped. | d. lithification |

THE PRINCIPLE OF SUPERPOSITION

- _____ 9. As long as a sequence of rock layers is undisturbed, scientists know that
- older rocks lie above younger rocks.
 - younger rocks lie below older rocks.
 - younger rocks lie above older rocks.
 - older rocks have eroded away.

Directed Reading B *continued*

- _____ **10.** The principle that states that younger rocks lie above older rocks in undisturbed sequences is called
- a.** relative dating.
 - b.** superposition.
 - c.** uniformitarianism.
 - d.** catastrophism.

DISTURBED ROCK LAYERS

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|---|-------------------------|
| _____ 11. a break in Earth's crust along which blocks of crust slide relative to one another | a. superposition |
| _____ 12. younger sediment deposited on top of older layers | b. folding |
| _____ 13. molten rock that has squeezed into existing rock and hardened | c. fault |
| _____ 14. rock layers bent and buckled by Earth's internal forces | d. tilting |
| _____ 15. rock layers slanted by Earth's internal forces but without folding | e. intrusion |
- 16.** When a layer or several layers of rock are missing from a rock-layer sequence, this is called a(n) _____.
- 17.** Name two possible explanations for a missing layer in a rock-layer sequence.
- _____
- _____

- 18.** An unconformity is created when an area is uplifted and exposed to _____ by wind and water.

ROCK-LAYER PUZZLES

- 19.** Why is a crosscutting feature always younger than the rock layers it cuts across?

Directed Reading B *continued*

20. How do geologists figure out rock-layer puzzles?

ORDER OF EVENTS

21. Geologists use superposition and crosscutting relationships to find what?

22. Can relative dating tell geologists exactly when events took place? Explain your answer.
