Answer Key

Directed Reading A

SECTION: EARTH'S STORY AND THOSE WHO FIRST LISTENED

1. C
2. D
3. A
4. E
5. B
6. D
7. A
8. C
9. Scientists believe that catastrophes sometimes play an important role in shaping Earth's history.
10. Huge craters have been found where asteroids and comets are thought to have struck the Earth.
11. A
12. C
13. B
14. D

SECTION: RELATIVE DATING: WHICH CAME FIRST?

1. B
2. C
3. B
4. The disruptions make it difficult for scientists to determine the relative age of the rocks.
5. The geologic column is an ideal sequence of rock layers that contains all the known fossils and rock formations on Earth.
6. Geologists use the geologic column to interpret rock sequences and to identify the layers in puzzling rock sequences.
7. The crosscutting feature is always younger because the rock layers had to exist before anything could cut across them.
8. C
9. A
10. E
11. B
12. D
13. unconformity
14. The layer was never present, or the layer was removed.
15. nondeposition
16. erosion
17. C
18. B
19. A
20. Geologists use their knowledge of the events that disturb or remove rock-layer sequences to help them solve rock-layer puzzles.

SECTION: ABSOLUTE DATING: A MEASURE OF TIME

1. The purpose of absolute dating is to determine the age of an object by determining the number of years it has existed.
2. isotopes
3. stable
4. unstable
5. radioactive decay
6. Scientists use the relative amounts of stable and unstable isotopes present in an object to determine the object's age.
7. parent
8. daughter
9. older
10. half-life
11. radiometric dating
12. Half the parent material has decayed and become daughter material.
13. D
14. A
15. B
16. C

SECTION: LOOKING AT FOSSILS

1. B
2. C
3. A
4. A
5. B
6. C
7. B
8. B
9. A
10. C
11. Animal tracks can tell how big an animal was and how fast it was moving

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