7. A
8. D
9. D
10. D
11. B
12. Answers may vary. Sample answer: Scientists found that some types of fossils are found in the rock layers of only one geologic age. Using this information, they can date the rock layers where these fossils are found.
13. Answers may vary. Sample answer: Paleontology is the study of past life. Understanding how and where things lived in the past can help us to reconstruct past ecosystems and conditions in which organisms lived.
14. The geologic column is an ideal rock-layer sequence that contains all the known fossils and rock formations on Earth arranged from oldest to youngest. Geologists create this reference column by merging data collected from rock sequences all over the world.
15. 20 days is equivalent to 5 half-lives (20÷4 4 = 5). The progression would be 32g→16g→8g →4g→2g→1g of radon remaining after 20 days.
16. Sequence: C, D, A, E, B Folding has occurred between pictures A and B. By picture C, the folded layers have broken, and one side has dropped down. Picture D shows erosion of the rock layers exposed by movement along the fault surface. In picture E, sediments have been deposited on top of the eroded surface.
17. Answers may vary. Sample answer: While many geologic processes happen slowly, some occur suddenly. For example, an asteroid strike may have caused the extinction of the dinosaurs.
18. a. eons
    b. Archean
    c. Phanerozoic
    d. Paleozoic
    e. Cenozoic
    f. reptiles
    g. mammals

Chapter Test C

1. C
2. C
3. C
4. C
5. B
6. C
7. C
8. A
9. B
10. D
11. A
12. C
13. B
14. A
15. D
16. C
17. fossils
18. radioactive decay
19. radiometric dating
20. index fossils

Standardized Test Prep

Reading

Passage 1

1. B
2. G
3. C

Passage 2

1. C
2. F
3. B

INTERPRETING GRAPHICS

1. B
2. H
3. D

MATH

1. B
2. G
3. A
4. G
5. C

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