

## Earth and Life History

Name:

## Life Throughout Time

Period:

Use Chapter 9, Section 3 to help you answer the questions below.

### Precambrian Time—Life Develops (p.279)

1. About when did life first appear? \_\_\_\_\_
- \_\_\_\_\_ 2. What did cyanobacteria add to the atmosphere?  
a. oxygen gas      b. radiation      c. magnetic fields      d. ultraviolet rays
- \_\_\_\_\_ 3. What did ozone do that helped life survive on land?  
a. increased radiation      b. reduced radiation      c. increased oxygen      d. reduced oxygen
- \_\_\_\_\_ 4. In what way are cells of eukaryotes different from cells of prokaryotes?  
a. They are larger.      c. They have a nucleus.  
b. They are smaller.      d. They don't have a nucleus.

### The Paleozoic Era

- \_\_\_\_\_ 5. About how long ago was the Paleozoic Era?  
a. 4.6 billion to 542 million years      c. 251 to 65 million years  
b. 542 to 251 million years      d. 65 million years to today
6. \_\_\_\_\_ flourished at the beginning of the Paleozoic Era.
- \_\_\_\_\_ 7. When did life forms with shells and exoskeletons first appear?  
a. during the Cambrian explosion      c. during the Permian extinction  
b. during the Cambrian extinction      d. during the Permian explosion
8. Fossils show that \_\_\_\_\_ were the first land animals.
9. In the \_\_\_\_\_ era, all major plant groups, except for flowering plants, appeared.
10. Earth's largest mass extinction that we know about was the \_\_\_\_\_ extinction.
11. \_\_\_\_\_ % of marine species became extinct during the Permian Extinction.
12. \_\_\_\_\_ % of land species became extinct during the Permian Extinction.



### The Mesozoic Era

- \_\_\_\_\_ 13. What animals survived from the Permian Period into the Mesozoic Era?  
a. bacteria      b. fungi      c. reptiles      d. mammals
14. \_\_\_\_\_ are the best-known reptiles from the Mesozoic Era.
- \_\_\_\_\_ 15. What plants formed large forests in the Mesozoic Era?  
a. conifers      b. ferns      c. grass      d. flowers
- \_\_\_\_\_ 16. What organisms disappeared during the Cretaceous-Tertiary extinction?  
a. all dinosaurs      b. all animals      c. all plants      d. all fish
- \_\_\_\_\_ 17. What do scientists believe may have caused the Cretaceous-Tertiary extinction?  
a. ultraviolet radiation from the sun      c. competition from new predators  
b. impact of an object from the solar system      d. destruction of habitat by a major flood

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- \_\_\_\_\_ 18. What is the fossil evidence that there was a Cretaceous-Tertiary extinction?
- a. Fossils disappeared from the record.
  - b. Fossils appeared in the record.
  - c. Cretaceous and Tertiary fossils are the same.
  - d. One fossil was left in the record.

### The Cenozoic Era

- \_\_\_\_\_ 19. When did the Cenozoic Era begin?
- a. 50,000 years ago
  - b. 1 million years ago
  - c. 40 million years ago
  - d. 65 million years ago

- \_\_\_\_\_ 20. When did the Cenozoic Era end?
- a. 50,000 years ago
  - b. 1 million years ago
  - c. 40 million years ago
  - d. The Cenozoic Era has not ended.

- \_\_\_\_\_ 21. Why do scientists know more about the Cenozoic Era than about earlier eras?
- a. Cenozoic fossils are easy to find.
  - b. Cenozoic fossils are hard to find.
  - c. Cenozoic fossils have not formed.
  - d. Early humans left pictures.

22. What is the Cenozoic Era sometimes called? \_\_\_\_\_

- \_\_\_\_\_ 23. When did humans first appear?
- a. early in the Cenozoic Era
  - b. late in the Cenozoic Era
  - c. early in the Mesozoic Era
  - d. late in the Mesozoic Era

- \_\_\_\_\_ 24. In the Cenozoic Era, when did ice sheets move out from Earth's poles?
- a. in the polar ages
  - b. in the glacial ages
  - c. in the ice ages
  - d. in the Age of Reptiles

- \_\_\_\_\_ 25. How did many animals survive during the ice ages?
- a. They migrated toward the equator.
  - b. They migrated toward the poles.
  - c. They hibernated through the ice ages.
  - d. They learned to live underwater.