

Section 17-3 Evolution of Multicellular Life

(pages 429-434)



Key Concept

- What were the characteristic forms of life in the Paleozoic, Mesozoic, and Cenozoic eras?

Precambrian Time (page 429)

1. Is the following sentence true or false? Almost 90 percent of Earth's history occurred during the Precambrian. _____
2. Circle the letter of each sentence that is true about life in the Precambrian.
 - a. Anaerobic and photosynthetic forms of life appeared.
 - b. Aerobic forms of life evolved, and eukaryotes appeared.
 - c. Multicellular life-forms evolved.
 - d. Life existed on the land and in the sea.
3. Why do few fossils exist from the Precambrian? _____

Paleozoic Era (pages 429-431)

4. The first part of the Paleozoic Era is the _____ Period.
5. Is the following sentence true or false? Life was not very diverse during the Cambrian Period. _____
6. Circle the letter of each sentence that is true about the Cambrian Period.
 - a. Organisms with hard parts first appeared.
 - b. Most animal phyla first evolved.
 - c. Many animals lived on the land.
 - d. Brachiopods and trilobites were common.

Match the periods of the Paleozoic Era with the evolutionary events that occurred during them.

- | | Periods |
|-------|---------------------------------|
| _____ | 7. Ordovician
and Silurian |
| _____ | 8. Devonian |
| _____ | 9. Carboniferous
and Permian |

- | Events |
|--|
| a. Reptiles evolved from amphibians, and winged insects evolved into many forms. |
| b. The first vertebrates evolved, and insects first appeared. |
| c. Many groups of fishes were present in the oceans, and the first amphibians evolved. |

10. Animals first begin to invade the land during the _____ Period.

11. Where does the Carboniferous Period get its name? _____

12. When many types of living things become extinct at the same time, it is called a(an)

_____.

13. Is the following sentence true or false? The mass extinction at the end of the Paleozoic affected only land animals. _____

Mesozoic Era (pages 431-432)

14. Complete the following table.

PERIODS OF THE MESOZOIC ERA

Period	Evolutionary Event
	First mammals
	First birds
	First flowering plants

15. The Mesozoic Era is called the Age of _____

16. The first dinosaurs appeared in the _____ Period.

17. Is the following sentence true or false? The mammals of the Triassic Period were very small. _____

18. Is the following sentence true or false? Many paleontologists think that birds are close relatives of dinosaurs. _____

19. The dominant vertebrates throughout the Cretaceous Period were _____

20. What advantage do flowering plants have over conifers? _____

21. Describe the mass extinction that occurred at the end of the Cretaceous Period.

Cenozoic Era (pages 433-434)

22. Is the following sentence true or false? During the Cenozoic Era, mammals evolved adaptations that allowed them to live on land, in water, and in the air.

23. The Cenozoic Era is called the Age of _____.

24. What were Earth's climates like during the Tertiary Period? _____

25. How did Earth's climate change during the Quaternary Period? _____

26. Is the following sentence true or false? The very earliest ancestors of our species appeared about 100,000 years ago. _____

Reading Skill Practice

When you read a section with many details, writing an outline may help you organize and remember the material. Outline Section 17-3 by first writing the section headings as major topics in the order in which they appear in the book. Then, beneath each major topic, list important details about it.