

## Section 17-3 Evolution of Multicellular Life (pages 429-434)



**TEKS FOCUS:** 7A Fossils as evidence of change in species; 7B Results of natural selection in diversity

*This section describes how multicellular life evolved from its earliest forms to its present-day diversity.*

### 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.*

| _____ | <b>Periods</b>               | <b>Events</b>  |
|-------|------------------------------|--|
| _____ | 7. Ordovician and Silurian   | a. Reptiles evolved from amphibians, and winged insects evolved into many forms.       |
| _____ | 8. Devonian                  | b. The first vertebrates evolved, and insects first appeared.                          |
| _____ | 9. Carboniferous and Permian | 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 compare-and-contrast 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. \_\_\_\_\_