

Skills Worksheet

# Vocabulary and Section Summary B

## Time Marches On

### VOCABULARY

After you finish the section, try this puzzle! Use the clues below to fill in the blanks. Then, unscramble the letters in the numbered blanks to answer the question on the next page.

1. the death of every member of a species

e x t i n c t i o n  
 \_\_\_\_\_  
 20 4 6 28

2. the standard method used to divide Earth's long natural history into manageable parts

G e o l o g i c t i m e  
 \_\_\_\_\_  
 10 15 25  
 s c a l e  
 \_\_\_\_\_  
 1

3. what eras are divided into

p e r i o d s  
 \_\_\_\_\_  
 17 22

4. the largest divisions of geologic time

E o n s  
 \_\_\_\_\_  
 3 27

5. the second-largest divisions of geologic time

E r a s  
 \_\_\_\_\_  
 12 2

6. what periods are divided into

E p o c h s  
 \_\_\_\_\_  
 7 24 10

7. the process of organisms using sunlight to produce their own food

P h o t o s y n t h e s i s  
 \_\_\_\_\_  
 14 21 26

8. a layer of gas in the upper atmosphere that absorbs harmful radiation from the sun

o z o n e  
 \_\_\_\_\_  
 8 23

**Vocabulary and Section Summary B** *continued*

**9. organisms that contain a nucleus and other structures in their cells**

E u k a r y o t e s  
 \_\_\_\_\_  
 9 5 18

**10. single-celled organisms that lack a nucleus**

P r o k a r y o t e s  
 \_\_\_\_\_  
 16 13 11

**11. What event describes the extinction of all the dinosaurs and about half of the animal and plant species?**

c r e t a c e o u s  
 \_\_\_\_\_  
 1 2 3 4 5 6 7 8 9 10  
 t e r t i a r y  
 \_\_\_\_\_  
 11 12 13 14 15 16 17 18  
 e x t i n c t i o n  
 \_\_\_\_\_  
 19 20 21 22 23 24 25 26 27 28

**SECTION SUMMARY**

**Read the following section summary.**

- The geologic time scale divides Earth’s 4.6 billion-year history into time intervals. These intervals include eons, eras, periods, and epochs.
- At certain times in Earth’s history, the number of different kinds of organisms has increased or decreased dramatically.
- Life on Earth developed more than 3.6 billion years ago, during Precambrian time. After cyanobacteria added oxygen to the atmosphere, more-complex forms of life evolved.
- A variety of marine organisms appeared at the beginning of the Paleozoic Era in what is called the Cambrian explosion. Near the end of the Paleozoic Era, the Permian extinction resulted in the disappearance of many organisms from the fossil record.
- Dinosaurs dominated Earth during the Mesozoic Era. They all became extinct during the Cretaceous-Tertiary extinction.
- Mammals have dominated the Cenozoic Era. Modern humans appeared during this era.

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# Directed Reading B

## Section: Change over Time (pp. 298–305)

1. One way to tell kinds of animals apart is by their **differences**.

### DIFFERENCES BETWEEN ORGANISMS

- b.** 2. How does adaptation help an organism?
- a. It helps the organism change colors.
  - b. It improves its ability to survive and reproduce.
  - c. It improves its ability to change species.
  - d. It helps the organism become a fossil.
- species** 3. If living things have the same characteristics, they may be members of the same
- a. evolution.
  - b. planet.
  - c. species.
  - d. fossil record.
4. Two organisms that can mate to produce offspring that can reproduce belong to the same **species**.
5. When members of the same species live in the same place, they form a(n) **population**.
6. Since life began on Earth, many **species** have vanished and many new ones have appeared.
7. Scientists have observed that species have **changed** over time.
8. The inherited **characteristics** in populations also change over time.
9. What can result as populations of organisms change?  
**new species can form**
- 
10. The process in which populations change over time is called **evolution**.

### EVIDENCE OF CHANGES OVER TIME

**within Earth's crust as fossils evidence**

11. Where is evidence that organisms have changed over time buried?
- a. within Earth's crust
  - b. on the Internet
  - c. in water
  - d. in old books