

## Chapter 32 Mammals

### Section 32–1 Introduction to the Mammals (pages 821–827)



**TEKS FOCUS:** 10A Functions of organ systems; 11A Internal feedback and homeostasis;  
**TEKS SUPPORT:** 7B Natural selection and adaptation

*This section describes the characteristics common to all mammals, as well as how mammals carry out life functions. It also briefly tells about mammalian evolution.*

#### Introduction (page 821)

1. List the two notable features of mammals.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
2. Circle the letter of each characteristic of mammals.
 

a. breathe air	c. ectotherm
b. three-chambered heart	d. endotherm

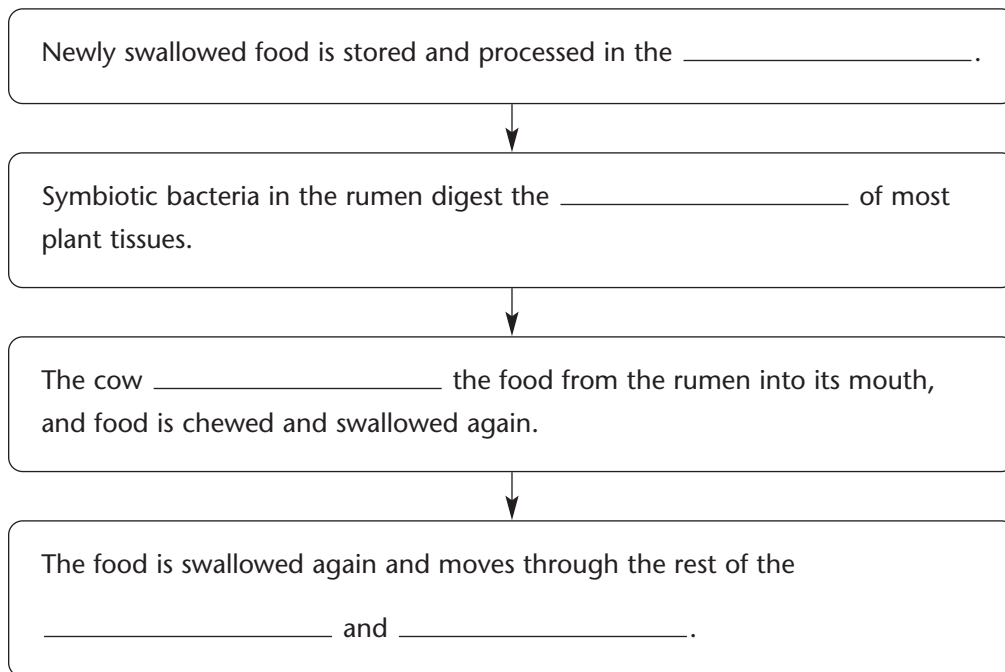
#### Evolution of Mammals (page 821)

3. What three characteristics help scientists identify mammalian fossils?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
4. The ancestors of mammals diverged from ancient \_\_\_\_\_ during the Permian Period.
5. Circle the letter of each sentence that is true about the evolution of mammals.
  - a. The first true mammals were as large as dinosaurs.
  - b. During the Cretaceous Period, mammals were probably nocturnal.
  - c. After dinosaurs disappeared, mammals increased in size and filled many new niches.
  - d. The Permian Period is usually called the Age of Mammals.

#### Form and Function in Mammals (pages 822–827)

6. List two ways in which mammals conserve body heat.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_

7. Is the following sentence true or false? Mammals have a low rate of metabolism.  
\_\_\_\_\_
8. Circle the letter of each way mammals are able to rid themselves of excess heat.  
a. fat            c. sweat glands  
b. hair           d. panting
9. The ability of mammals to regulate their body heat from within is an example of \_\_\_\_\_.
10. Is the following sentence true or false? Cats and weasels are omnivores because they consume only meat. \_\_\_\_\_
11. As mammals evolved, the form and function of their \_\_\_\_\_ and \_\_\_\_\_ became adapted to eat foods other than insects.
12. List the four types of specialized teeth found in modern mammals.  
a. \_\_\_\_\_            c. \_\_\_\_\_  
b. \_\_\_\_\_            d. \_\_\_\_\_
13. Is the following sentence true or false? Carnivores have a shorter intestine than herbivores. \_\_\_\_\_
14. Complete the flowchart to show how cows digest their food.



15. How does the diaphragm work to help move air into and out of the lungs?

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16. Is the following sentence true or false? Mammals have a four-chambered heart that pumps blood into two separate circuits around the body. \_\_\_\_\_

17. How do mammalian kidneys help to maintain homeostasis? \_\_\_\_\_

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*Match each part of the mammalian brain with its function.*

<b>Part of the brain</b>	<b>Function</b>
_____ 18. medulla oblongata	<b>a.</b> Involved in thinking and learning
_____ 19. cerebral cortex	<b>b.</b> Controls muscular coordination
_____ 20. cerebrum	<b>c.</b> Regulates involuntary body functions
_____ 21. cerebellum	<b>d.</b> Part of the cerebrum that is the center of thinking and other complex behaviors

22. Is the following sentence true or false? Mammals have a rigid backbone, as well as rigid shoulder and pelvic girdles for extra stability. \_\_\_\_\_

23. Mammals reproduce by \_\_\_\_\_ fertilization.

24. Is the following sentence true or false? All mammals are viviparous, or live-bearing.

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25. What do young mammals learn from their parents? \_\_\_\_\_

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