

CHAPTER

36

DIRECTED READING

Mammals

► Section 36-1: The Mammalian Body

Mammals Share Five Key Characteristics

*Complete each statement by writing the correct term or phrase in the space provided.*

1. A(n) \_\_\_\_\_ is a filament composed mainly of dead cells filled with the protein keratin.
2. The primary function of hair is \_\_\_\_\_ .

Mammals Have Diverse, Specialized Teeth

*Read each question, and write your answer in the space provided.*

3. What are the four types of teeth in mammals?

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4. What are the two sets of teeth in mammals?

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5. Why do mammals have more efficient teeth than do reptiles?

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## Mammals Maintain a High Body Temperature

*Read each question, and write your answer in the space provided.*

6. What are three benefits that mammals derive from being endothermic?

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7. Why have mammals evolved very efficient circulatory and respiratory systems?

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8. Why is the four-chambered heart with a septum that completely divides the ventricle an efficient structure for circulating blood?

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9. How do grizzly bears reproduce?

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*Complete each statement by writing the correct term or phrase in the space provided.*

10. Respiration in mammals is aided by the \_\_\_\_\_, a sheet of muscle that separates the chest cavity from the abdominal cavity.
11. In mammalian lungs, the individual \_\_\_\_\_ are small and numerous, increasing the surface area for the diffusion of gases.

## Mammals Nurse and Care for Their Young

*Complete each statement by writing the correct term or phrase in the space provided.*

12. A nutrient-rich energy source called milk is produced in the \_\_\_\_\_ of mammals.
13. \_\_\_\_\_ occurs when mammalian mothers stop nursing their young.

## ► Section 36-2: Today's Mammals

### Mammals Have the Most Diverse Body Form of All Vertebrates

*Mark each statement below T if it is true or F if it is false.*

- \_\_\_\_\_ 1. Bats are mammals that fly.
- \_\_\_\_\_ 2. Whales are mammals that live in oceans.
- \_\_\_\_\_ 3. Whales have gills that absorb oxygen from the water.
- \_\_\_\_\_ 4. Bats and whales both use echolocation to navigate in the dark.

### Mammals Reproduce in One of Three Ways

*Complete each statement by underlining the correct term or phrase in the brackets.*

- 5. A [platypus / lizard] is an example of a monotreme.
- 6. Monotremes reproduce by [laying eggs / giving birth to fully developed young].
- 7. Female monotremes [have / do not have] nipples.
- 8. Female monotremes [have / do not have] mammary glands.
- 9. [Spiny anteaters / Opossums] are monotremes.

*Read each question, and write your answer in the space provided.*

10. Describe the birth and development of young marsupials.

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11. Why are marsupials found only in Australia and New Guinea?

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12. What is the function of the placenta?

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## Most of Today's Mammals Are Placental

*Write the correct placental mammal from the list below in the space next to its characteristics.*

apes  
bats  
dogs  
elephants

horses  
manatees  
pigs  
rabbits

rodents  
seals  
shrews  
whales

- \_\_\_\_\_ 13. small, intelligent, with two pairs of large, curving incisor teeth that grow continuously
- \_\_\_\_\_ 14. capable of true flight; hang upside down during the day
- \_\_\_\_\_ 15. eat mainly insects
- \_\_\_\_\_ 16. strong, intelligent, successful hunters; long, canine teeth
- \_\_\_\_\_ 17. marine carnivores that feed at sea but return to land to mate, rear their young, and rest
- \_\_\_\_\_ 18. flexible, grasping hands and feet; exceptional ability to learn
- \_\_\_\_\_ 19. hoofs with an even number of toes; chew their cud
- \_\_\_\_\_ 20. hoofs with an odd number of toes; do not chew their cud
- \_\_\_\_\_ 21. streamlined bodies; front limbs modified into flippers; blowhole located on top of the head
- \_\_\_\_\_ 22. have one pair of long, continuously growing incisors; long hind legs
- \_\_\_\_\_ 23. barrel-shaped, marine, and graze on aquatic plants
- \_\_\_\_\_ 24. nose and upper lip modified into a trunk that is used for a variety of tasks