

Chapter 26 Sponges and Cnidarians

Section 26–1 Introduction to the Animal Kingdom (pages 657–663)



TEKS FOCUS: 5A Epithelia, muscles, bone; 5B Differentiation; 7A Embryology; 8C Animal kingdom; 10A Body systems; 11A Feedback and homeostasis; **TEKS SUPPORT:** 8A Classification

This section describes characteristics that all animals share and the essential functions that animals carry out. It also explains the important trends in animal evolution.

What Is an Animal? (page 657)

1. Is the following sentence true or false? The cells that make up animal bodies are eukaryotic. _____
2. What characteristics do all animals share? _____

3. Complete the table about animals.

CATEGORIES OF ANIMALS

| Category | Percentage of Species | Description | Examples |
|----------|-----------------------|---------------------------|----------|
| | | Animals without backbones | |
| | | Animals with backbones | |

What Animals Do to Survive (pages 658–659)

4. What are seven essential functions that animals carry out?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
 - f. _____
 - g. _____
5. Complete the table about feeding.

TYPES OF FEEDERS

| Type of Feeder | Description |
|----------------|---|
| | Feeds on plants |
| Carnivore | |
| Filter feeder | |
| | Feeds on decaying plant and animal material |

6. Explain the difference between a parasite and a host. _____

7. What does an animal do when it respire? _____

8. What does the excretory system of most animals do? _____

9. Animals respond to events in their environment using specialized cells called _____.
10. What are receptors, and what is their function? _____

11. What does it mean that an animal is motile? _____

12. What enables motile animals to move around? _____

13. Circle the letter of the process that helps a species maintain genetic diversity.
a. asexual reproduction c. response
b. movement d. sexual reproduction
14. What does asexual reproduction allow animals to do? _____

Trends in Animal Evolution (pages 660–663)

15. What are four characteristics that complex animals tend to have?
a. _____
b. _____
c. _____
d. _____
16. How have the cells of animals changed as animals have evolved? _____

17. Groups of specialized cells form _____, which form organs, which form _____.
18. Circle the letter of what a zygote forms after it undergoes a series of divisions.
 a. blastopore b. protostome c. blastula d. deuterostome
19. What is a protostome? _____

20. What is a deuterostome? _____

21. Is the following sentence true or false? Most invertebrates are deuterostomes.

22. In the development of a deuterostome, when is the mouth formed? _____

23. Complete the table about germ layers.

GERM LAYERS

| Germ Layer | Location | Develops Into These Body Structures |
|------------|-----------------|-------------------------------------|
| | Innermost layer | |
| | Middle layer | |
| | Outermost layer | |

24. Complete the table about body symmetry.

BODY SYMMETRY

| Type of Symmetry | Description | Examples |
|------------------|---|----------|
| | Body parts that repeat around the center | |
| | A single plane divides the body into two equal halves | |

25. In an animal with radial symmetry, how many imaginary planes can be drawn through the center of the animal that would divide the animal in half? _____

Match the term with its meaning.

| Term | Meaning |
|---------------------|---------------|
| _____ 26. anterior | a. Upper side |
| _____ 27. posterior | b. Back end |
| _____ 28. dorsal | c. Front end |
| _____ 29. ventral | d. Lower side |

30. A body that is constructed of many repeated and similar parts, or segments, exhibits _____.

31. What is cephalization? _____

32. How do animals with cephalization respond differently to the environment than animals without cephalization? _____

33. What is a body cavity? _____

34. Why is having a body cavity important? _____

Reading Skill Practice

An outline can help you remember the main points of a section. Write an outline of Section 26–1. Use the section’s blue headings for the first level of your outline and the section’s green headings for the second level. Support your headings with details from the section. Do your work on a separate sheet of paper.