Name_____ Class_____ Date_____

Section 29–2 Form and Function in Invertebrates (pages 751–758)

TEKS FOCUS: 6E Mitosis, meiosis, and sexual and asexual reproduction; 10A Body systems

This section describes how different invertebrate phyla carry out their essential functions.

Introduction (page 751)

1. What are seven essential tasks all animals perform to survive? _____

_____

_____

2. Why aren't more complicated systems in living animals necessarily better than simpler systems in other living animals? _____

_____

_____

Feeding and Digestion (pages 751–752)

3. How is the digestion of food different in simple animals compared to that in more complex animals? _____

_____

_____

TYPES OF DIGESTION

Type	Definition
	Digestion of food inside cells
Extracellular digestion	

4. Complete the table about types of digestion.

5. More-complex animals digest food in a tube called a(an) _____.

Respiration (pages 752–753)

6. Why do respiratory organs have large surface areas? _____

_____

_____

7. Why are respiratory surfaces kept moist? _____

_____

8. What are gills? _____

_____

9. What are book lungs made of? _____

_____

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Circulation (page 754)

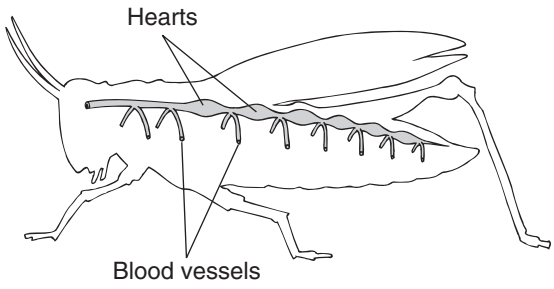
10. How do the smallest and thinnest animals meet the requirement of supplying oxygen and nutrients to cells and removing metabolic wastes? _____

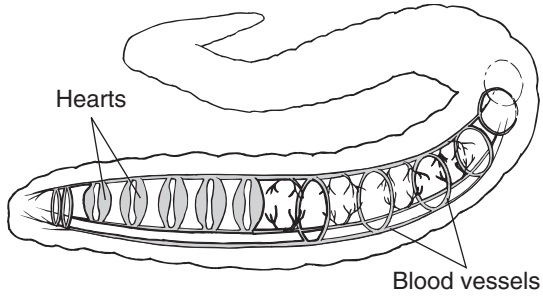
_____

_____

11. Complex animals move fluid through their bodies using one or more _____.

12. Label each of the organisms below according to which has a closed circulatory system and which has an open circulatory system.





_____ _____

13. Closed circulatory systems are characteristic of what kinds of animals? _____

_____

_____

Excretion (pages 754–755)

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

_____

_____

_____

15. How do aquatic invertebrates rid their bodies of ammonia? _____

_____

_____

_____

16. Circle the letter of each way that terrestrial invertebrates eliminate nitrogenous wastes from their bodies.

a. Ammonia diffuses from body tissues into the surrounding water.

b. They convert ammonia into urea.

c. They convert ammonia into uric acid.

d. They form a thick paste that leaves the body through the rectum.

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Response (page 756)

17. What three trends do invertebrates show in the evolution of the nervous system?

a. _____

b. _____

c. _____

18. Number the following groups of invertebrates according to how centralized their nervous system is. Number the group with the simplest nervous system *1*.

_____ **a.** Flatworms

_____ **b.** Cnidarians

_____ **c.** Arthropods

19. Is the following sentence true or false? The more complex an animal's nervous system, the more developed its sense organs are. _____

Movement and Support (pages 756–757)

20. What are the three main kinds of skeletal systems among invertebrates?

a. _____

b. _____

c. _____

21. What invertebrates have endoskeletons? _____

Sexual and Asexual Reproduction (pages 757–758)

22. What is the difference between external and internal fertilization? _____

_____

_____

_____

23. Circle the letter of each sentence that is true about invertebrate reproduction.

a. Most invertebrates reproduce sexually in one part of their life cycle.

b. Asexual reproduction maintains genetic diversity in a population.

c. Asexual reproduction includes budding and division in two.

d. Most invertebrates have separate sexes.