

Chapter 28 Arthropods

Reinforcement and Study Guide

Section 28.1 Characteristics of Arthropods

In your textbook, read about what an arthropod is and exoskeletons.

Answer the following questions.

1. What is the most distinguishing arthropod characteristic?

2. Explain the advantage of having appendages with joints.

3. List three functions of an arthropod exoskeleton.

In your textbook, read about molting, segmentation, and gas exchange.

Complete each statement.

4. Prior to molting, a new exoskeleton forms _____ the old one.
5. Many arthropods have three distinct body sections: a(n) _____, a(n) _____, and a(n) _____.
6. In arthropods that have a _____, the head and thorax are fused.

Complete the table by checking the correct column to indicate the respiratory structure you would expect to find in each example.

Example	Type of Respiratory Structure		
	Book Lungs	Gills	Tracheal Tubes
7. freshwater crayfish			
8. tarantula			
9. hissing cockroach			
10. swallowtail butterfly			

Chapter
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Arthropods, *continued***

In your textbook, read about arthropods' senses, body systems, and reproduction.

Identify the following as characteristics of either simple or compound eyes.

- _____ **11.** have multiple lenses
- _____ **12.** well-adapted for detecting slight movements
- _____ **13.** have a single, focusing-type lens
- _____ **14.** produce an image made up of thousands of parts

Determine if the statement is true. If it is not, rewrite the italicized part to make it true.

- 15.** Animals produce pheromones, or *low frequency sounds*, that affect the behavior of others.

- 16.** In many arthropods, large, fused ganglia act as nervous system control centers *for the entire body*.

- 17.** Arthropods have an open circulatory system, in which blood leaves vessels and *comes in direct contact with body tissues*. _____
- 18.** *Respiration* occurs in arthropods via the Malpighian tubules. _____
- 19.** During parthenogenesis, *fertilized eggs* develop into offspring. _____

In your textbook, read about arthropod origins.

Answer the following questions.

- 20.** What are the major reasons for the widespread success of arthropods?

- 21.** From what animal group did arthropods probably evolve?

- 22.** List three adaptations that have evolved in arthropods.

