

Chapter 27

Mollusks and Segmented Worms

Reinforcement and Study Guide

Section 27.1 Mollusks

In your textbook, read about what a mollusk is.

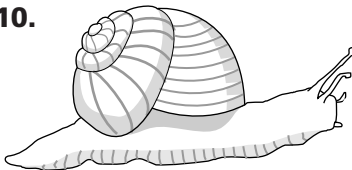
The phylum *Mollusca* is a very diverse group of animals. Complete the table by checking the correct column for each characteristic.

Characteristic	Exhibited In:	
	All Mollusks	Some Mollusks
1. Possess a hard, external shell		
2. Bilaterally symmetrical		
3. Have a mantle		
4. Live on land		
5. Digestive tract has two openings.		
6. Inhabit aquatic environments		
7. Share similar developmental patterns		
8. Are slow-moving		
9. Have a coelom		

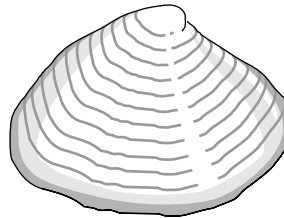
In your textbook, read about diversity of mollusks.

Identify each mollusk shown below. Write the name of the class to which it belongs and briefly describe where it lives.

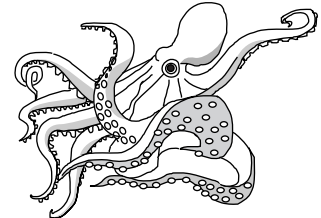
10.



11.



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In your textbook, read about a mollusk's body systems and the diversity of mollusks.

Complete each statement.

- 13.** Gastropods have either a(n) _____ shell or _____ shell.
- 14.** Most mollusks have a(n) _____ circulatory system in which blood flows through _____ into open _____ around tissues and organs.
- 15.** Most mollusks use _____ for respiration, while a garden slug uses a primitive _____ for gas exchange.
- 16.** _____ are involved in removing wastes from a mollusk's body.
- 17.** Fertilization in most aquatic mollusks takes place _____ .

For each statement below, write true or false.

- _____ **18.** All shelled gastropods are predators.
- _____ **19.** When a snail is disturbed, it pulls its body inside its shell for protection.
- _____ **20.** Without a shell, terrestrial slugs and sea slugs (nudibranchs) have no protection against predators.
- _____ **21.** The two shells of bivalve mollusks are held together by the mantle.

Determine whether each of the statements below best describes bivalves, gastropods, or both.

- _____ **22.** Nearly all feed by filtering particles from the water around them.
- _____ **23.** Most have a large muscular foot.
- _____ **24.** They use a radula for feeding.
- _____ **25.** Water flows through their bodies via well-developed incurrent and excurrent siphons.

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In your textbook, read about cephalopods.

Answer the following questions.

26. Describe the “head-foot” region of a cephalopod.

27. What would you expect to find on the interior surfaces of a squid’s many arms?

28. How does the intelligence of an octopus compare to that of a clam?

Using what you know about the three major classes of mollusks, complete the chart below by checking the correct column(s) for each characteristic.

Characteristics	Type of Mollusk		
	Gastropods	Bivalves	Cephalopods
29. Intelligent, with a well-developed nervous system			
30. Have no distinct head			
31. Have an open circulatory system			
32. External shells present in some species			
33. All species are carnivorous predators.			
34. Use a radula in feeding			
35. All use gills for both respiration and food collection.			
36. Bite prey with a beak			