

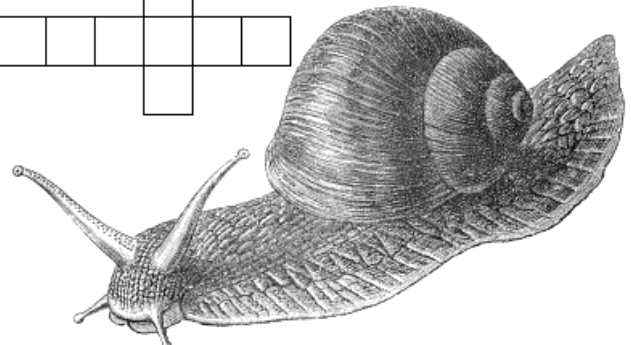
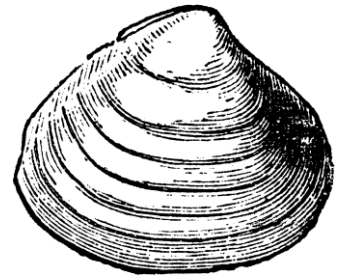
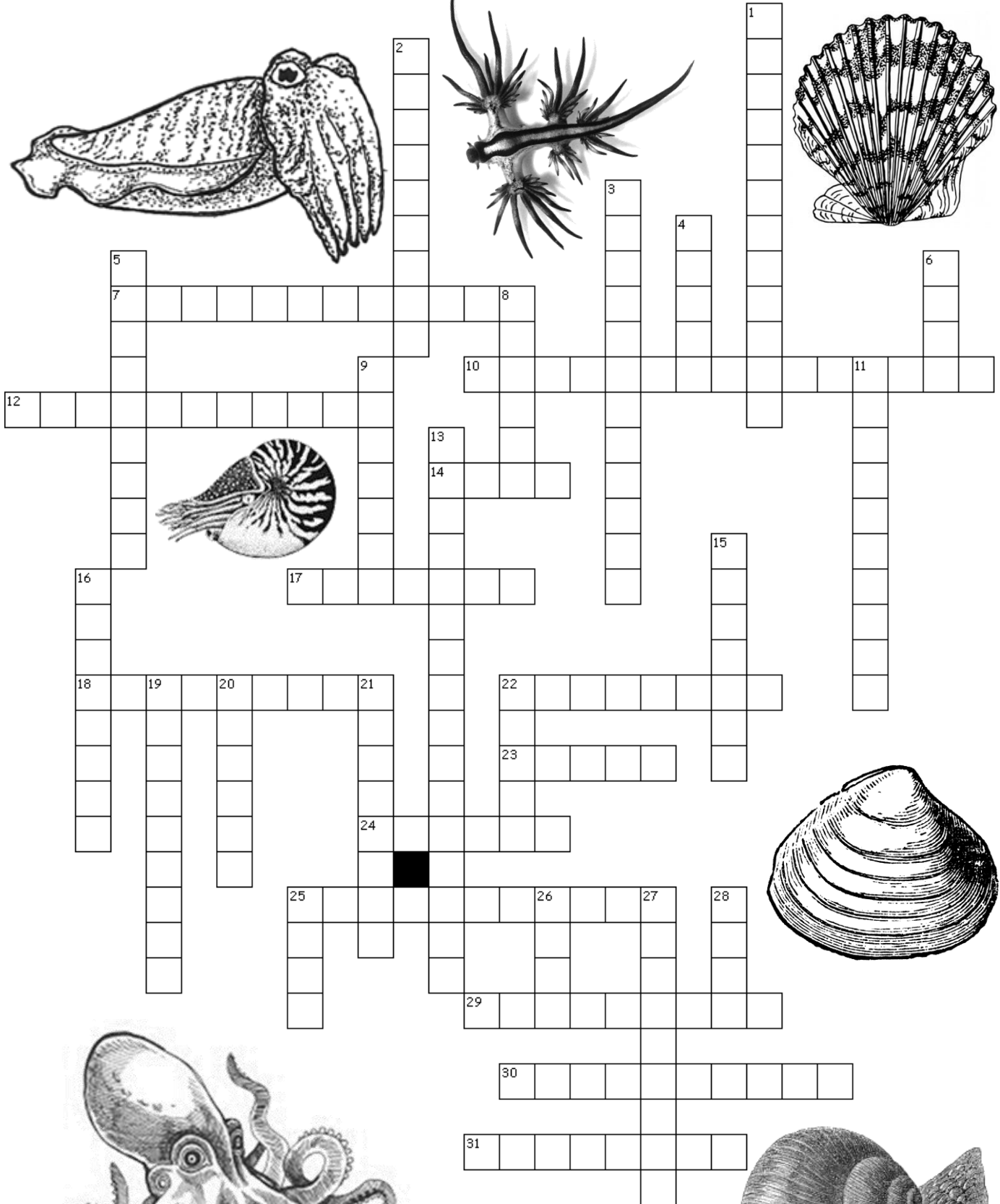
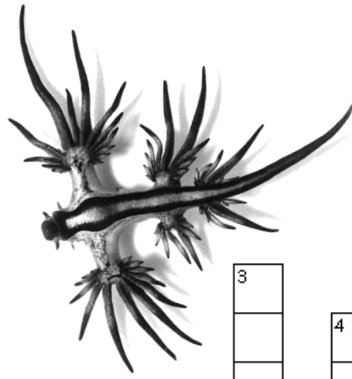
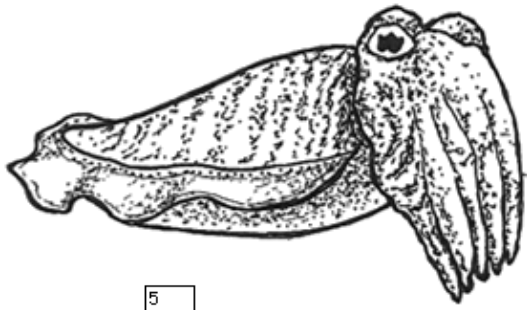
# Mollusk Review Worksheet

Matching Match each class to the correct organism(s).

- |   |                   |
|---|-------------------|
| 1. _____ Nudibranchs, snails and slugs            | A. Polyplacophora |
| 2. _____ Squid, octopus, nautilus, and cuttlefish | B. Gastropoda     |
| 3. _____ Chitons                                  | C. Bivalvia       |
| 4. _____ Clams, oysters, scallops, and mussels    | D. Cephalopoda    |

Directions Using what you know about the four major classes of mollusks, complete the chart below by placing an "X" in the correct column(s) for each characteristic.

Characteristic	Type of Mollusk:			
	Gastropod	Bivalve	Cephalopod	Chiton
5. Intelligent, with a well-developed nervous system				
6. Have no distinctive head				
7. Have an open circulatory system				
8. Have a closed circulatory system				
9. External shells present in some species				
10. All species are carnivorous predators				
11. Use a radula in feeding				
12. All use gills for both respiration and food collection				
13. Bite prey with a beak				
14. Their shell contains 8 overlapping plates on the dorsal surface.				
15. Have a pair of tentacles on their head; this is where the eyes or eyespots are located				
16. Use excretory structures called nephridia				
17. All are marine species				
18. Known for their great camouflage abilities				
19. Undergo torsion				
20. The most threatened group of invertebrates in the US				



## Across

7. Name for the outer layer of a mollusk shell
10. Structure used by filter feeding bivalves to bring in water containing small food particles
12. The free-swimming larva that emerges from the egg in many mollusks
14. The oldest and smallest whorl of a univalve shell
17. Process in which the visceral mass of a gastropod rotates 180 degrees during development
18. Organs that remove metabolic wastes from a mollusk's body
22. The term Cephalopod means this
23. Material which composes the inner layer of a mollusk shell
24. Type of circulatory system found in cephalopods; blood moves to and from tissues within blood vessels
25. The term Gastropod means this
29. Long, coiled organ used to absorb nutrients from digested food
30. A copper-containing pigment which causes mollusks to have blue blood
31. The term Bivalve means this

## Down

1. Another name for the foregut; receives and prepares food for digestion
2. Type of symmetry exhibited by most mollusks
3. Part of the mollusk body that contains most of the organs
4. Another term for a mollusk shell
5. A protective plate made of tanned protein that covers the shell aperture when the body is withdrawn into the shell
6. The oldest part of a bivalve shell
8. A membranous sheath of skin extending from the visceral mass that hangs down on each side of the body, protecting the soft parts
9. The second larval stage of many mollusks; has large, ciliated lobes and the beginnings of a foot, shell, and mantle
11. Another name for bivalves, meaning "hatchet-footed animals" after their shape
13. Material which composes the middle layer of a mollusk shell
15. Animals found on rocky marine shorelines with 8 overlapping plates on their dorsal surface
16. Modified gills present in many aquatic mollusks; feathery or comb-like structures used for respiration
19. Name for the middle layer of a mollusk shell
20. A rasping, tongue-like organ that is found in all mollusks except bivalves
21. Strong muscles which extend between the shells to tightly hold a bivalve's shell closed
22. Structure that connects the two shells of a bivalve
25. The term Mollusk means this
26. The large, muscular organ mollusks use for locomotion and prey capture
27. Location of the eyes or eyespots on a snail
28. Type of circulatory system in which blood is not entirely contained within blood vessels; rather it flows through vessels in some parts of the body and enters open sinuses in other parts

### Short Answer Essay Questions

1. List and describe the three main parts of a mollusk's body:


2. Explain how cephalopods can change color. Also list several reasons why they may change color.

3. What is a red tide?

4. How and why does an oyster produce a pearl?

5. List three or more ways the nautilus is different from other cephalopods.