

## Section 26–3 Cnidarians (pages 669–675)



TEKS SUPPORT: 8A Classify organisms; 10A Functions of organ systems

*This section explains what a cnidarian is and describes the two body plans that exist in the cnidarian life cycle. It also identifies the three groups of cnidarians.*

### Introduction (page 669)

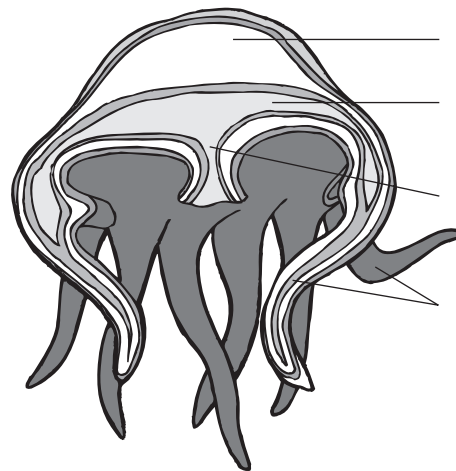
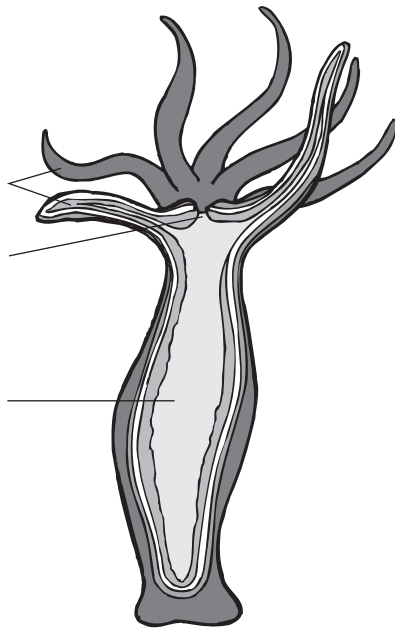
1. Cnidarians are members of the phylum \_\_\_\_\_.

### What Is a Cnidarian? (page 669)

2. What important features unite the cnidarians as a group? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. What are cnidocytes? \_\_\_\_\_  
\_\_\_\_\_
4. A poison-filled, stinging structure within a cnidocyte that contains a tightly coiled dart is called a(an) \_\_\_\_\_.

### Form and Function in Cnidarians (pages 670–672)

5. Is the following sentence true or false? Cnidarians have bilateral symmetry.  
\_\_\_\_\_
6. What are the two stages in the cnidarian life cycle?  
a. \_\_\_\_\_ b. \_\_\_\_\_
7. Write labels on each illustration below to identify the life-cycle stage and to name the different body parts.



\_\_\_\_\_

\_\_\_\_\_

Match the cnidarian structure with its description.

Structure	Description
_____ 8. Gastroderm	a. Digestive chamber with single opening
_____ 9. Mesoglea	b. Sensory cells that help determine direction of gravity
_____ 10. Gastrovascular cavity	c. Inner lining of the gastrovascular cavity
_____ 11. Nerve net	d. Loosely organized network of nerve cells
_____ 12. Statocysts	e. Layer that lies between gastroderm and epidermis
_____ 13. Ocelli	f. Eyespots that detect light

14. Circle the letter of each sentence that is true about form and function in cnidarians.

- a. In a polyp, the mouth points downward.
- b. Materials that cannot be digested are passed out of the body through the mouth.
- c. Cnidarians respire by diffusion through their body walls.
- d. Most cnidarians reproduce sexually and asexually.

15. What does a cnidarian's hydrostatic skeleton consist of? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

16. Cnidarian polyps can reproduce asexually by \_\_\_\_\_.

17. In the *Aurelia* life cycle, how are young medusas released? \_\_\_\_\_  
 \_\_\_\_\_

**Groups of Cnidarians** (pages 672–674)

18. Complete the table about classes of cnidarians.

**CLASSES OF CNIDARIANS**

Class	Characteristics of Life Cycle	Examples
	Live lives primarily as medusas	
	Polyps of most grow in branching colonies; some lack a medusa stage	
	Have only the polyp stage	

19. What is bioluminescence, and for what do jellyfishes use it? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

20. How do hydras differ from other cnidarians in the class Hydrozoa?

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21. Circle the letter of each sentence that is true about corals.

- a. Corals secrete an underlying skeleton of calcium carbonate.
- b. Corals are solitary polyps that live at all depths of the ocean.
- c. Coral colonies growing near one another produce coral reefs.
- d. Most corals are colonial.

22. Is the following sentence true or false? Sea anemones are solitary polyps.

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23. How are coral reefs produced?

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### Ecology of Corals (page 675)

24. What variables determine the worldwide distribution of corals?

- a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

25. What do corals depend on to capture solar energy, recycle nutrients, and help lay down their skeletons?

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26. Circle the letter of each way that coral reefs can be harmed.

- a. Sediments from logging can smother corals.
- b. Overfishing can upset the ecological balance of coral reefs.
- c. Algae can remove energy from corals.
- d. Industrial pollutants can poison corals.

27. What is coral bleaching?

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