

**Chapter 30 Nonvertebrate Chordates, Fishes, and Amphibians**

**Section 30–1 The Chordates (pages 767–770)**



**TEKS FOCUS:** 7B Phylogeny; 10A Body systems; **TEKS SUPPORT:** 7A Change in species using anatomical similarities, embryology; 10B Interrelationships of body systems

*This section describes the characteristics shared by all chordates. It also tells about the two groups of nonvertebrate chordates.*

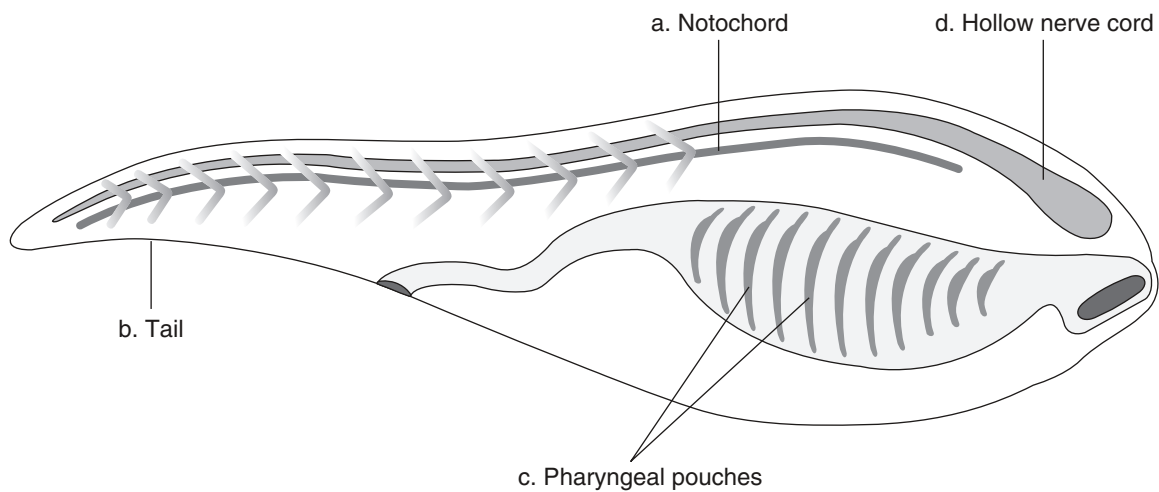
**What Is a Chordate? (page 767)**

1. List the four key characteristics of a chordate.

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

Use the diagram below to match the description of the chordate characteristic with its structure.

**Structure**



**Description**

- \_\_\_\_\_ 2. Connects nerves to internal organs, muscles, and sense organs
- \_\_\_\_\_ 3. Long supporting rod located just below the nerve cord
- \_\_\_\_\_ 4. Paired structures in the throat region
- \_\_\_\_\_ 5. Contains bone and muscle

**Most Chordates Are Vertebrates (page 768)**

- 6. What structure do most vertebrates have? \_\_\_\_\_
- 7. What chordate structure becomes the spinal cord in vertebrates? \_\_\_\_\_

8. The backbone is made of individual segments called \_\_\_\_\_ that enclose and protect the spinal cord.
9. Circle the letter of each sentence that is true about vertebrates.
  - a. A vertebrate's backbone is part of an endoskeleton.
  - b. The endoskeleton supports and protects the animal's body.
  - c. The endoskeleton must be shed as the animal grows.
  - d. The endoskeleton is made entirely of nonliving material.

### Nonvertebrate Chordates (pages 769–770)

10. How are tunicates and lancelets similar to each other? \_\_\_\_\_  
\_\_\_\_\_
11. What evidence indicates that vertebrates and nonvertebrate chordates evolved from a common ancestor? \_\_\_\_\_  
\_\_\_\_\_
12. Circle the letter of each characteristic found only in tunicate larvae and not in tunicate adults.
  - a. tunic
  - b. tail
  - c. hollow nerve cord
  - d. notochord
13. Is the following sentence true or false? Both larval and adult tunicates are filter feeders.  
\_\_\_\_\_
14. Circle the letter of each characteristic found in lancelets.
  - a. definite head region
  - b. jaws
  - c. notochord
  - d. fins
15. Is the following sentence true or false? Lancelets use the pharynx for feeding and gas exchange. \_\_\_\_\_
16. How is blood moved through the body of a lancelet? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Reading Skill Practice

A Venn diagram is a useful tool to compare and contrast two things. Construct a Venn diagram to compare and contrast the characteristics of tunicates and lancelets. See Appendix A for more information about Venn diagrams. Do your work on a separate sheet of paper.