

## Section 35–4 The Senses (pages 906–909)

*This section explains how each of the five main senses responds to stimuli from the environment.*

### Introduction (page 906)

1. What are sensory receptors? \_\_\_\_\_  
\_\_\_\_\_
2. List the five general categories of sensory receptors.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
  - e. \_\_\_\_\_
3. Which category of sensory receptors are sensitive to touch, sound, and motion?  
\_\_\_\_\_  
\_\_\_\_\_

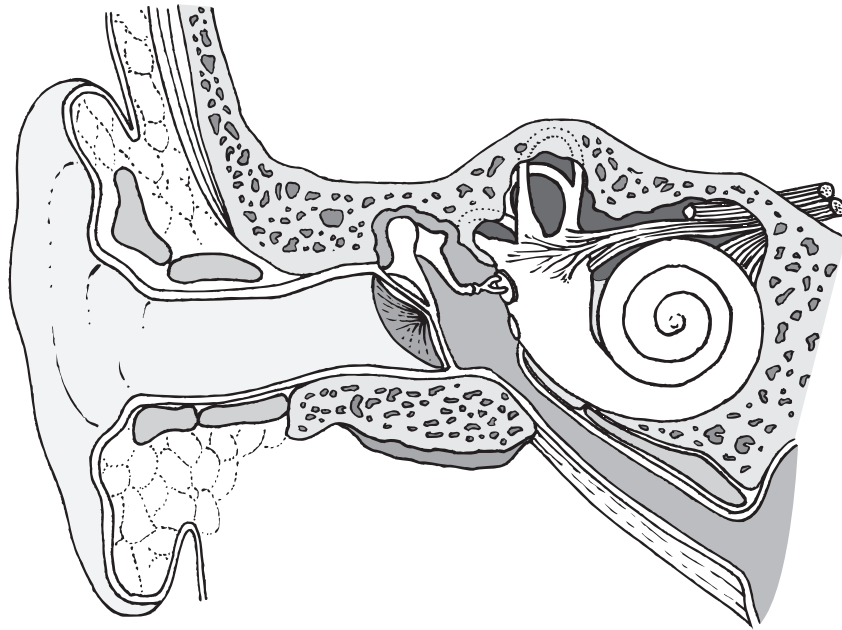
### Vision (pages 906–907)

4. Circle the letter of each sentence that is true about the structures of the eye.
  - a. Light enters the eye through the cornea.
  - b. The chamber behind the cornea is filled with vitreous humor.
  - c. The pupil changes in size to let more or less light enter the eye.
  - d. The lens focuses light on the retina.
5. Is the following sentence true or false? The function of the iris is to adjust the size of the pupil. \_\_\_\_\_
6. Where are the photoreceptors located in the eye? \_\_\_\_\_  
\_\_\_\_\_
7. What do photoreceptors do? \_\_\_\_\_  
\_\_\_\_\_
8. Is the following sentence true or false? Cones are extremely sensitive to light, but they do not distinguish different colors. \_\_\_\_\_
9. How do impulses travel from the eyes to the brain? \_\_\_\_\_  
\_\_\_\_\_

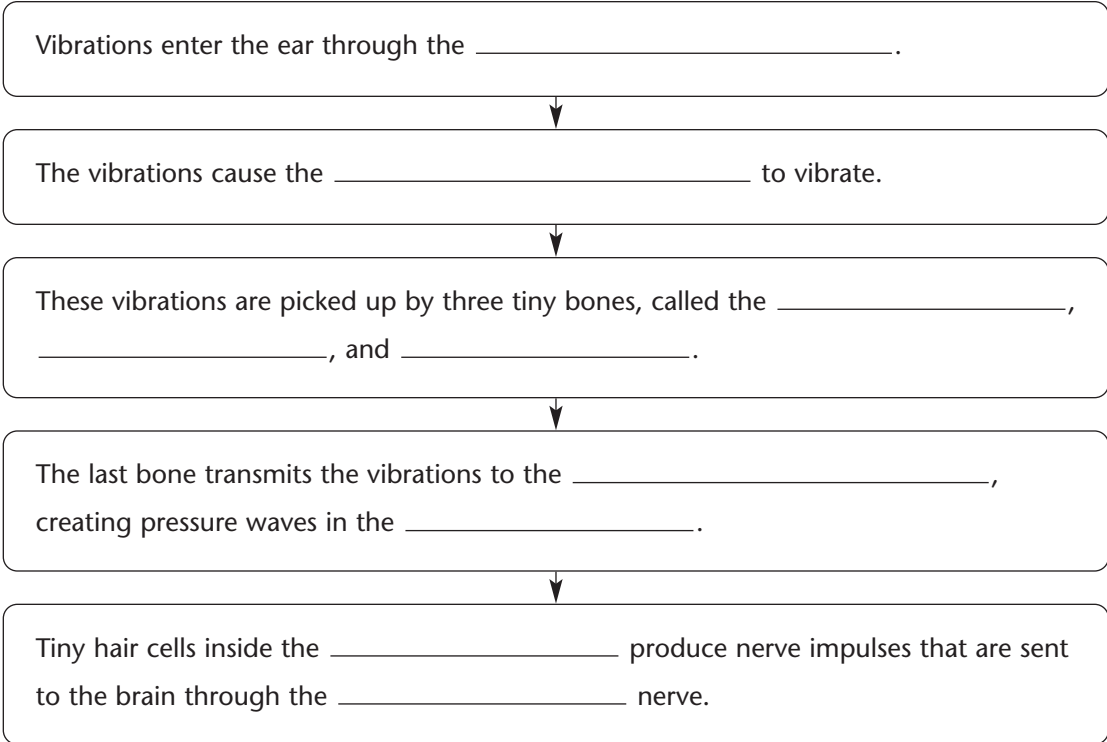
### Hearing and Balance (pages 908–909)

10. List the two sensory functions of the ear.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_

11. Label each of the following structures in the drawing of the ear: auditory canal, tympanum, semicircular canals, and cochlea.



12. Is the following sentence true or false? The tympanum sends nerve impulses to the brain. \_\_\_\_\_
13. Complete the flowchart.



14. What is the role of hair cells in the cochlea? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

15. How do the semicircular canals help maintain balance? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Smell and Taste** (page 909)

16. Is the following sentence true or false? Your sense of smell is actually an ability to detect pressure. \_\_\_\_\_

17. How does the body detect smell? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

18. Is the following sentence true or false? Much of what we commonly call the “taste” of food and drink is actually smell. \_\_\_\_\_

19. The sense organs that detect taste are the \_\_\_\_\_.

20. List the four different categories of tastes.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

**Touch and Related Senses** (page 909)

21. What is the largest sense organ? \_\_\_\_\_  
\_\_\_\_\_

22. Is the following sentence true or false? The skin contains sensory receptors that respond to temperature, touch, and pain. \_\_\_\_\_

23. Circle the letter of each choice that is true about the sense of touch.

a. Unlike the other senses, the sense of touch is not found in one particular place.

b. All parts of the body are equally sensitive to touch.

c. The greatest density of touch receptors is found on the arms and legs.

d. Touch is detected by mechanoreceptors.

24. Where is the greatest density of touch receptors found on the body? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_