

**The Nervous System** ▪ *Reading/Notetaking Guide***Sight and Hearing** (pp. 614–620)

*This section describes how your eyes enable you to see and how you hear.*

**Use Target Reading Skills**

*As you read, make an outline about the senses. Use the red headings for the main ideas and the blue headings for the supporting ideas.*

The Senses	
I. Vision	
A. How light enters your eye	
B.	
C.	
D.	
II.	
A.	
B.	
C.	
D.	
E.	

**Vision** (pp. 615–617)

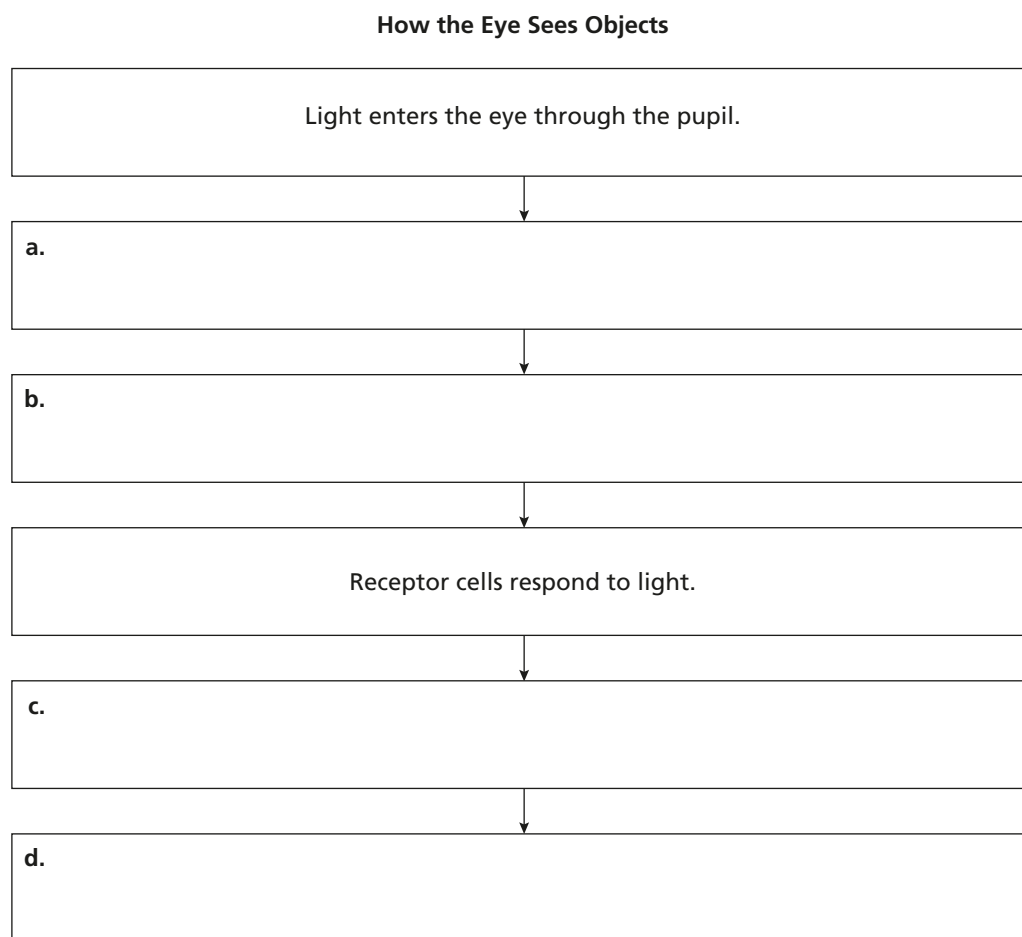
Match the parts of the eye with their function.

Parts	Functions
_____ 1. iris	a. The layer of receptor cells that lines the back of the eye where nerve impulses begin
_____ 2. lens	b. Regulates the amount of light entering the eye and gives the eye its color
_____ 3. cornea	c. The opening through which light enters the eye
_____ 4. pupil	d. The clear tissue that covers the front of the eye
_____ 5. retina	e. Focuses light

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**Sight and Hearing** *(continued)*

6. Complete the flowchart to show how the eye sees objects.



7. Is the following sentence true or false? Cone cells work best in dim light and enable you to see black, white, and shades of gray.

\_\_\_\_\_

8. What two things happen to the image in the cerebrum?

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

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

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9. Complete the table to show how the lens focuses.

Focusing the Lens		
	Seeing Far Away	Seeing Close Up
What do the muscles do?		
What happens to the lens?		

10. How is vision in humans different from vision in animals whose eyes are on opposite sides of the head?

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**Hearing and Balance** (pp. 618–620)

11. Ears convert \_\_\_\_\_, a stimulus, to nerve impulses that your brain interprets.
12. How are sounds made?

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13. Is the following sentence true or false? Sound waves can travel only through air. \_\_\_\_\_
14. The external ear is shaped like a(n) \_\_\_\_\_ to gather sound waves.
15. Circle the letter of the membrane that vibrates when sound waves strike it.
- a. external ear
  - b. hammer
  - c. anvil
  - d. eardrum

**The Nervous System** ▪ *Reading/Notetaking Guide***Sight and Hearing** *(continued)*

Match the three main sections of the ear with their functions.

Main Section	Function
_____ 16. external ear	a. Vibrations pass from the hammer to the anvil to the stirrup.
_____ 17. middle ear	b. Sound enters and reaches the eardrum.
_____ 18. inner ear	c. Vibrations in the cochlea cause nerve cells to transmit signals to the brain.

19. What is the cochlea?

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20. The structures in the ear that control your sense of balance are the

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21. Is the following sentence true or false? The cerebellum analyzes the impulses to determine if you are losing your balance.

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