Name: _____ Date: _____

Module 18 Vision: Sensory and Perceptual Processing

1. the distance from the peak of one light or sound wave to the peak of the next

2. the dimension of color that is determined by the wavelength of light

3. the amount of energy in a light wave, which influences what we perceive as brightness

4. the adjustable opening in the center of the eye through which light enters

5. a ring of muscle tissue that forms the colored portion of the eye around the pupil and controls the size of the pupil opening; it dilates or constricts in response to light intensity

6. the transparent structure behind the pupil that changes shape to help focus images on the retina

7. a multilayered, light-sensitive tissue on the eyeball's inner surface; contains the receptor rods and cones plus layers of neurons that begin the processing of visual information

8. the central focal point in the retina

9. the process by which the eye's lens change its curvature and thickness to focus near or far objects on the retina

10. retinal receptors that detect black, white and gray, and are sensitive to movement; necessary for peripheral and twilight vision when cones don't respond

11. retinal receptors that are concentrated near the center of the retina and that function in daylight or in well-lit conditions; detect fine details and give rise to color sensations

12. the nerve that carries neural impulses from the eye to the brain

13. the point at which the optic nerve leaves the eye, creating a "blind" spot because no receptor cells are located there

14. nerve cells in the brain's visual cortex that respond to specific features of the stimulus, such as shape, angle, or movement

A. cones

B. wavelength

C. rods

D. blind spot

E. y-h trichromatic theory

F. iris

G. retina

H. feature detectors

I. intensity

J. lens

K. fovea

L. opponent-process theory

M. accommodation

N. pupil

15. processing of many aspects of a problem simultaneously; the brain's natural mode of information processing for many functions, including vision

O. hue

16. the theory that opposing retinal processes (red-green, blue-yellow, white-black) enable color vision. For example, some cells are stimulated by green and inhibited by red; others are stimulated by red and inhibited by green

P. optic nerve

17. the theory that the retina contains three different types of color receptors which, when stimulate in combination, can produce the perception of any

Q. parallel processing