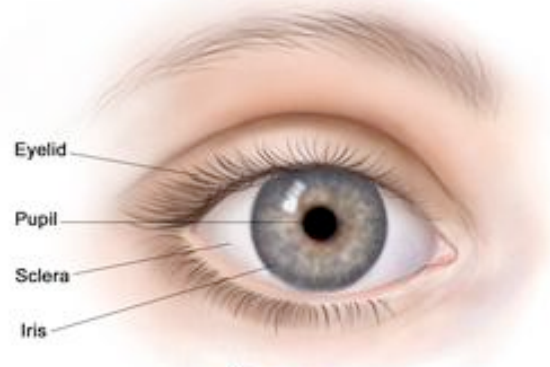


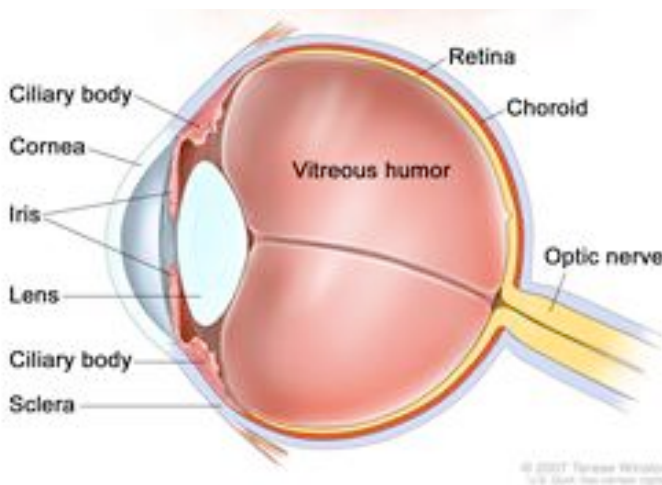
## Eye Structure and Seeing Light—Notes Outline

Light \_\_\_\_\_ your eye through a \_\_\_\_\_ portion of the \_\_\_\_\_ (the tough, white, outer covering of the eye), called the \_\_\_\_\_. The cornea is \_\_\_\_\_, so it slightly \_\_\_\_\_ the light as it goes through. Light then passes through the \_\_\_\_\_ (a clear fluid in the \_\_\_\_\_ used for eye \_\_\_\_\_) and then through the \_\_\_\_\_.

The pupil is simply a \_\_\_\_\_ in the \_\_\_\_\_. The iris is a \_\_\_\_\_ that controls how \_\_\_\_\_ the pupil is. It is the \_\_\_\_\_ part of the eye. In bright light, the iris \_\_\_\_\_ and the pupil gets \_\_\_\_\_. In low light, the iris \_\_\_\_\_ and the pupil gets \_\_\_\_\_.



Directly behind the iris is the \_\_\_\_\_. This structure changes \_\_\_\_\_ to \_\_\_\_\_ light so that we can see \_\_\_\_\_. Its shape is \_\_\_\_\_, meaning it curves \_\_\_\_\_ on both sides. The \_\_\_\_\_ muscles above and below the lens control the \_\_\_\_\_ of the lens.



Behind the lens is a clear gel called the \_\_\_\_\_. Light goes through this, then strikes the \_\_\_\_\_. This is the \_\_\_\_\_ on the inside of the \_\_\_\_\_ of the eye that contains \_\_\_\_\_ types of cells sensitive to \_\_\_\_\_: \_\_\_\_\_ and \_\_\_\_\_. Rods sense \_\_\_\_\_ and \_\_\_\_\_ and can work in

\_\_\_\_\_ light. Cones sense \_\_\_\_\_, and must have a certain amount of light to work.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ kinds of cones: One senses \_\_\_\_\_ wavelengths of light, in the \_\_\_\_\_ range, and are called L-cones. The second type sense the \_\_\_\_\_ wavelengths of light, mainly in the \_\_\_\_\_ range, and are called \_\_\_\_\_. The third kind \_\_\_\_\_, and sense the shorter wavelengths of light, mostly in the \_\_\_\_\_ range.

The rods and cones send messages through the \_\_\_\_\_, which carries the information to the \_\_\_\_\_. The sight center of your brain is located in the \_\_\_\_\_, basically \_\_\_\_\_. This is why a blow to the back of your head can result in blindness or other vision problems.

### Causes of Color Blindness

1. \_\_\_\_\_: You are born with these types. Sometimes a type of cone is \_\_\_\_\_, or the \_\_\_\_\_, that a cone recognizes is different than normal. L-cone and M-cone problems result in \_\_\_\_\_ color blindness (the \_\_\_\_\_ common type).
2. \_\_\_\_\_: These types occur after birth. For example, accidents involving the \_\_\_\_\_ of the brain, or Parkinson's Disease can cause \_\_\_\_\_ problems.

Source of images: National Cancer Institute at the National Institutes of Health  
<http://www.cancer.gov/cancertopics/pdq/treatment/retinoblastoma/patient/page1/AllPages/Print>