



eyes



ears



se



sensory organs of smell



**sensory receptors in skin,
joints, muscles, and other
parts of the body**

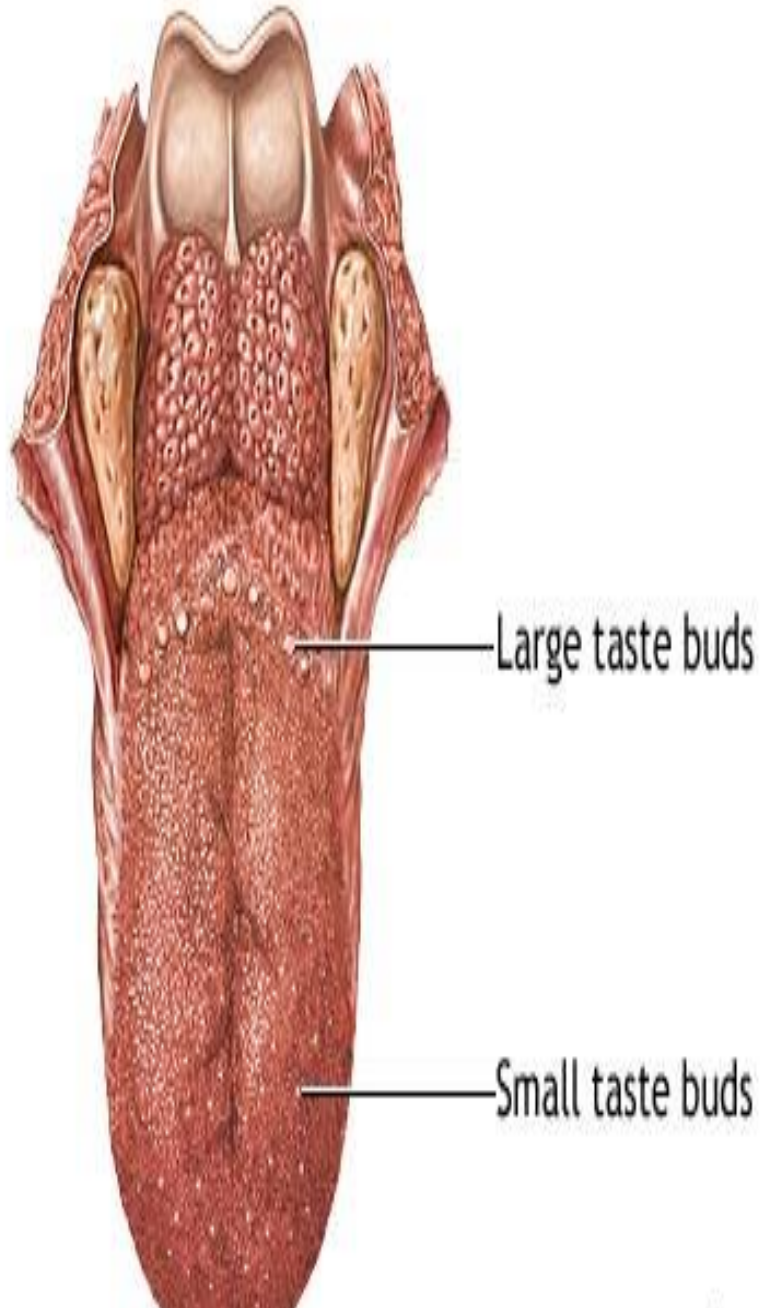
Sense organs (Eyes and tongue)



Tongue

- The tongue is one of the most important organs of speech and nutrition

Tongue

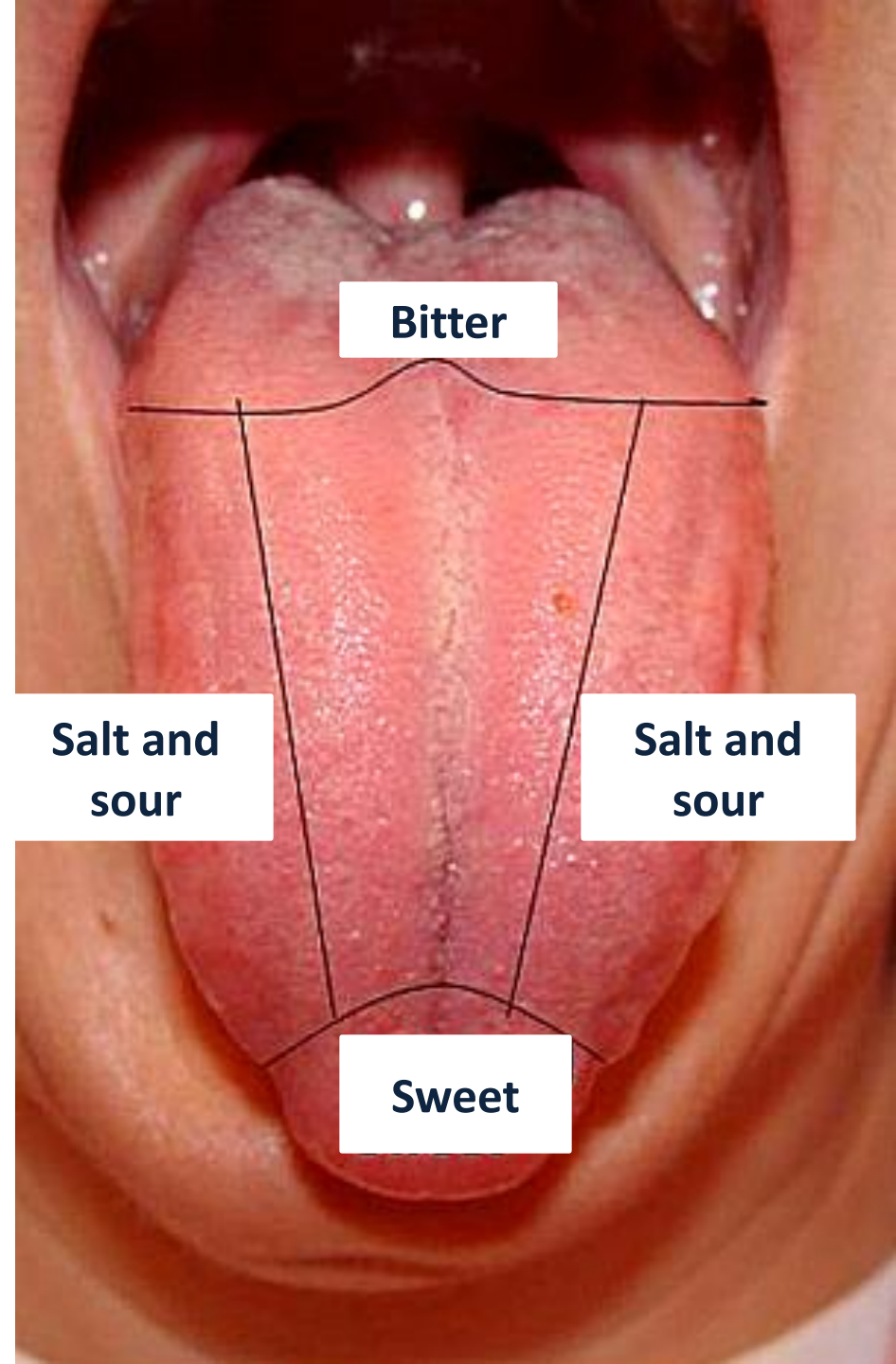


Tongue

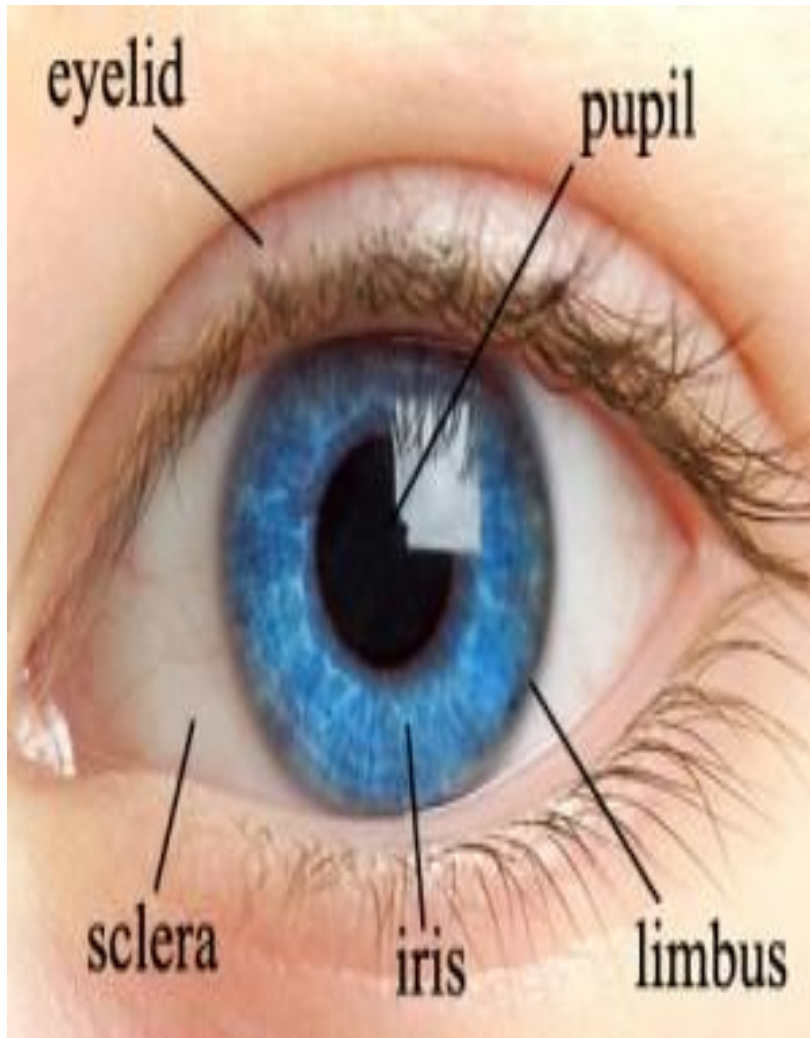
- The surface of the tongue is covered with small projections called **papillae**
- There are the taste receptors or taste buds within the papillae

Tongue regions

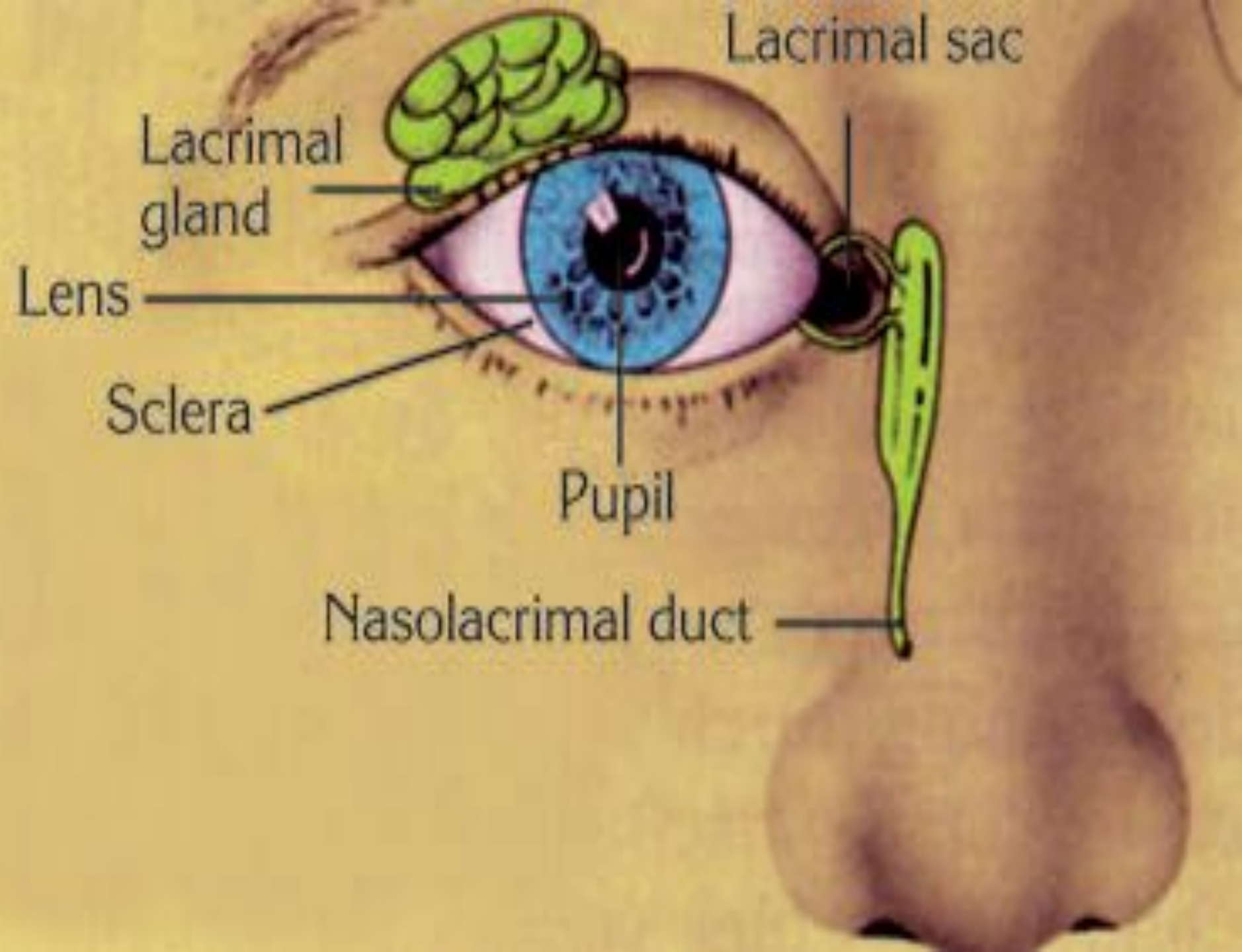
- Sweet foods are tasted at the tip of the tongue, whereas bitter foods are tasted at the rear
- Sour and salty foods are simultaneously tasted on both sides of the tongue



The Human Eye

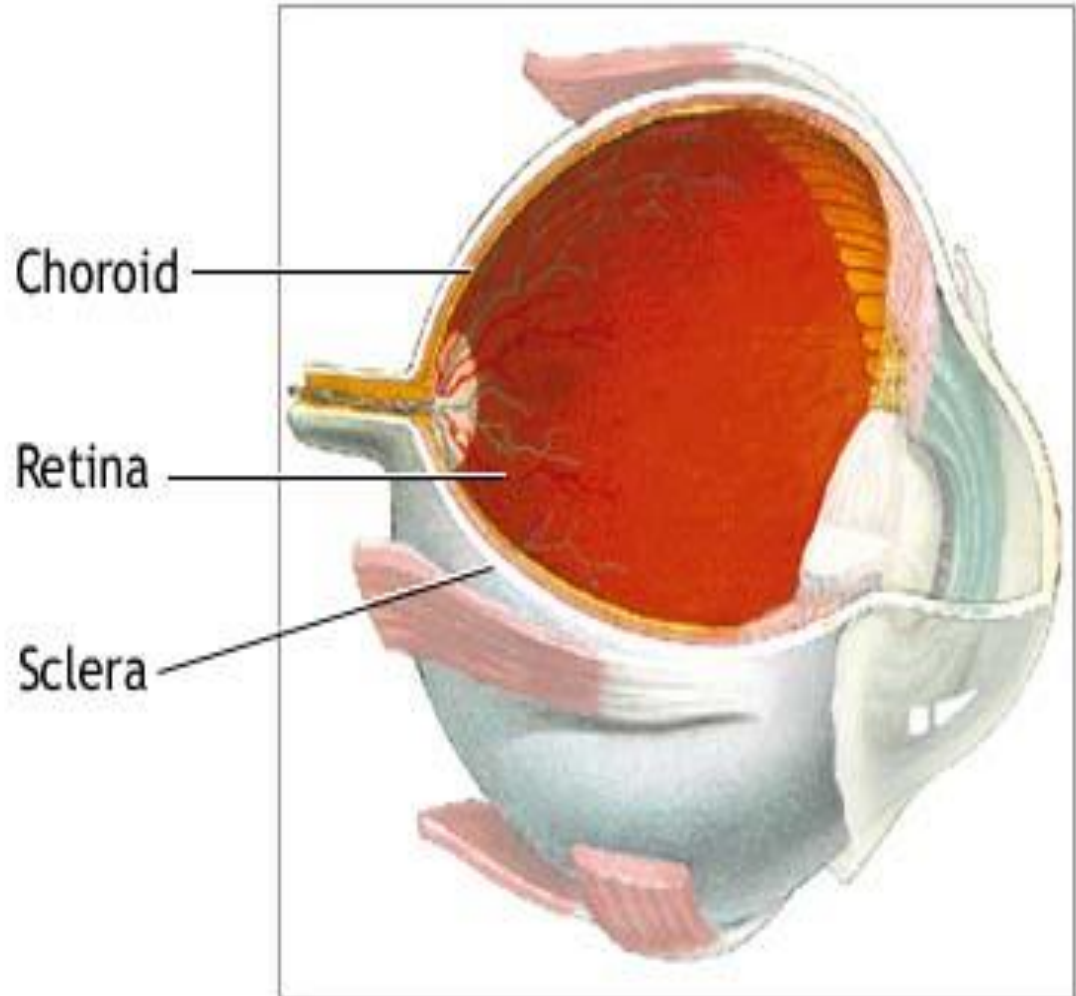


- It consists of two main structures: an eye sphere and accessory structures



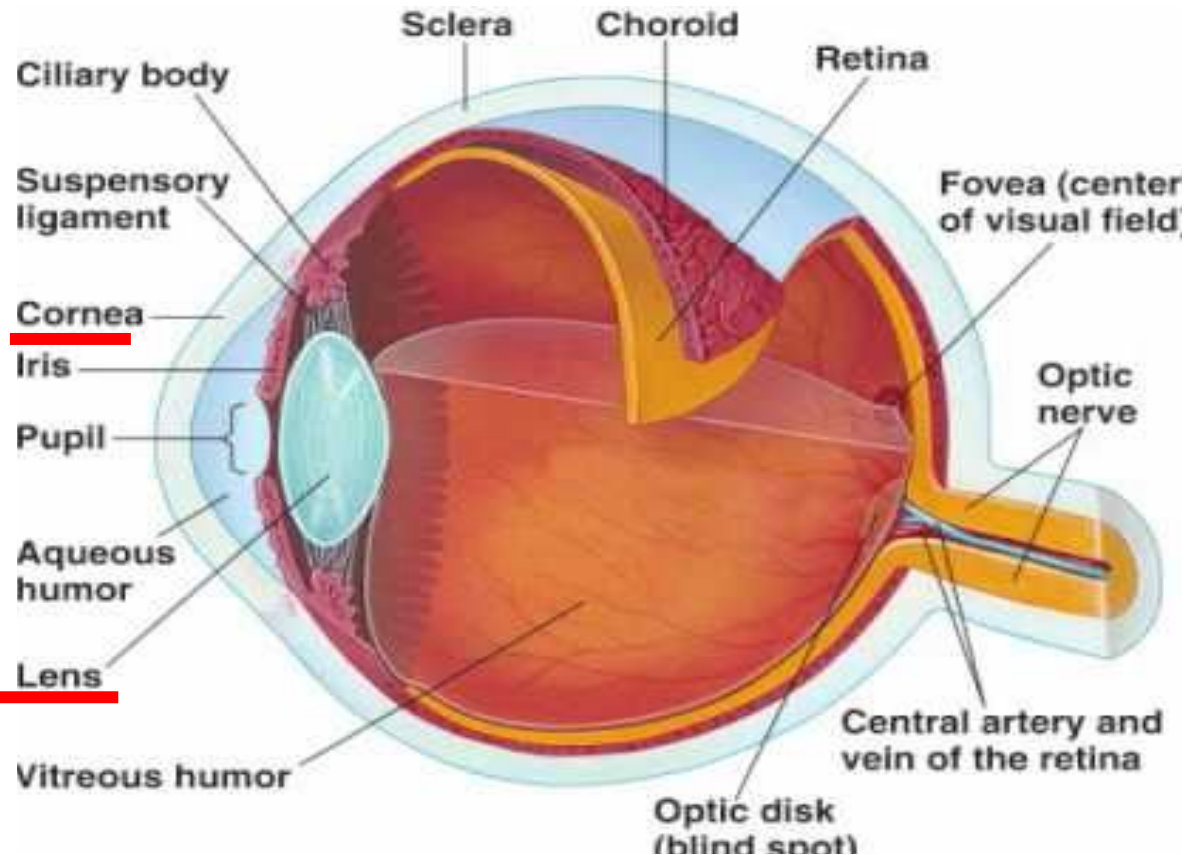
The structure of the eye sphere

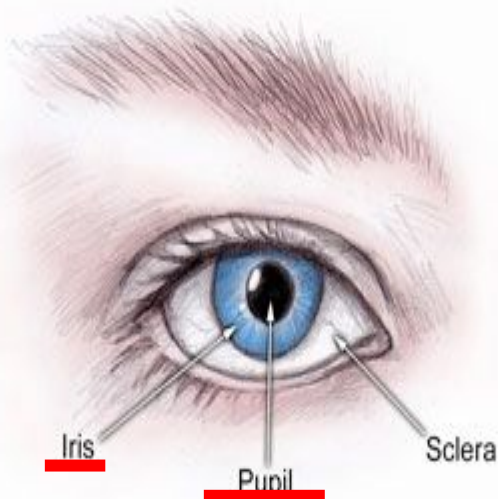
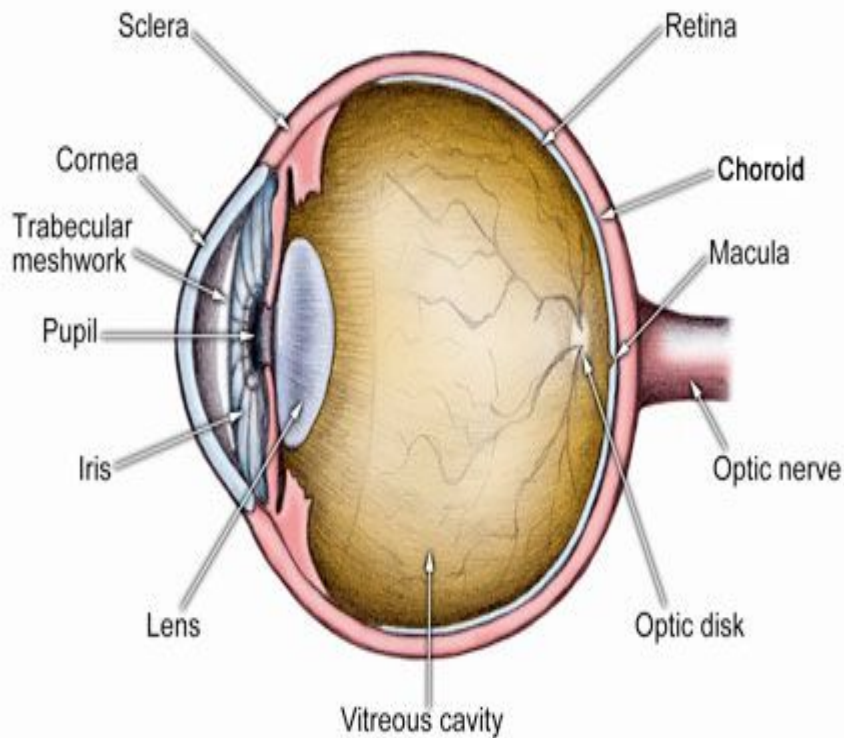
- It consists of:
- Sclera
- Choroid
- Retina



Sclera

- The part of the sclera in front of the eye is called the cornea
- It allows entering of light
- The lens plays an important role in focusing the light onto the proper photoreceptors

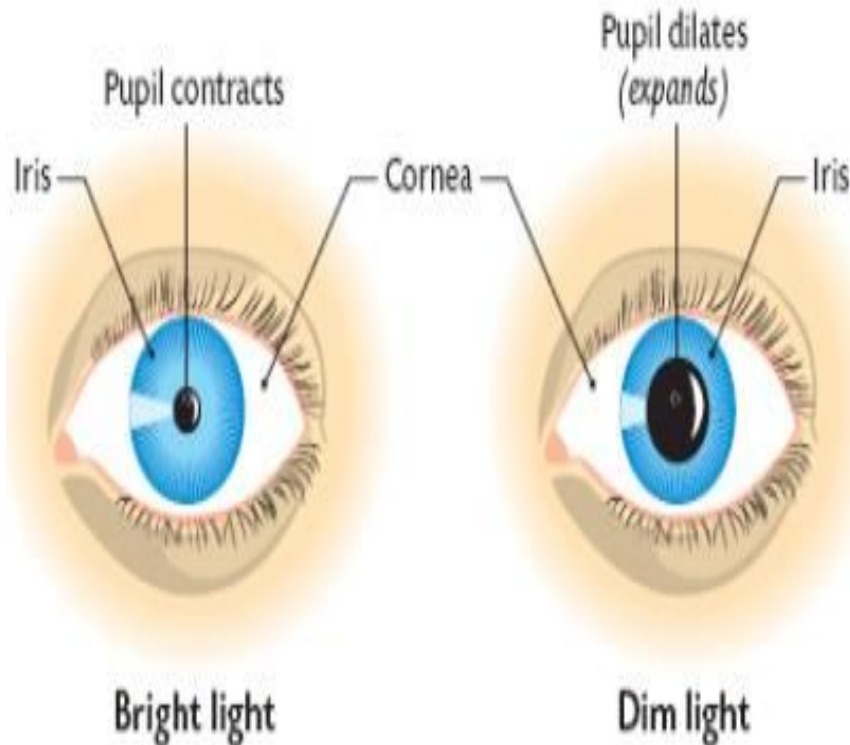




Choroid

- Just inside the sclera is the choroid
- This layer contains many blood vessels
- At the front of eye the choroid layer forms the iris
- **Iris** is colored part of eye
- In the centre of the iris is an opening called PUPIL

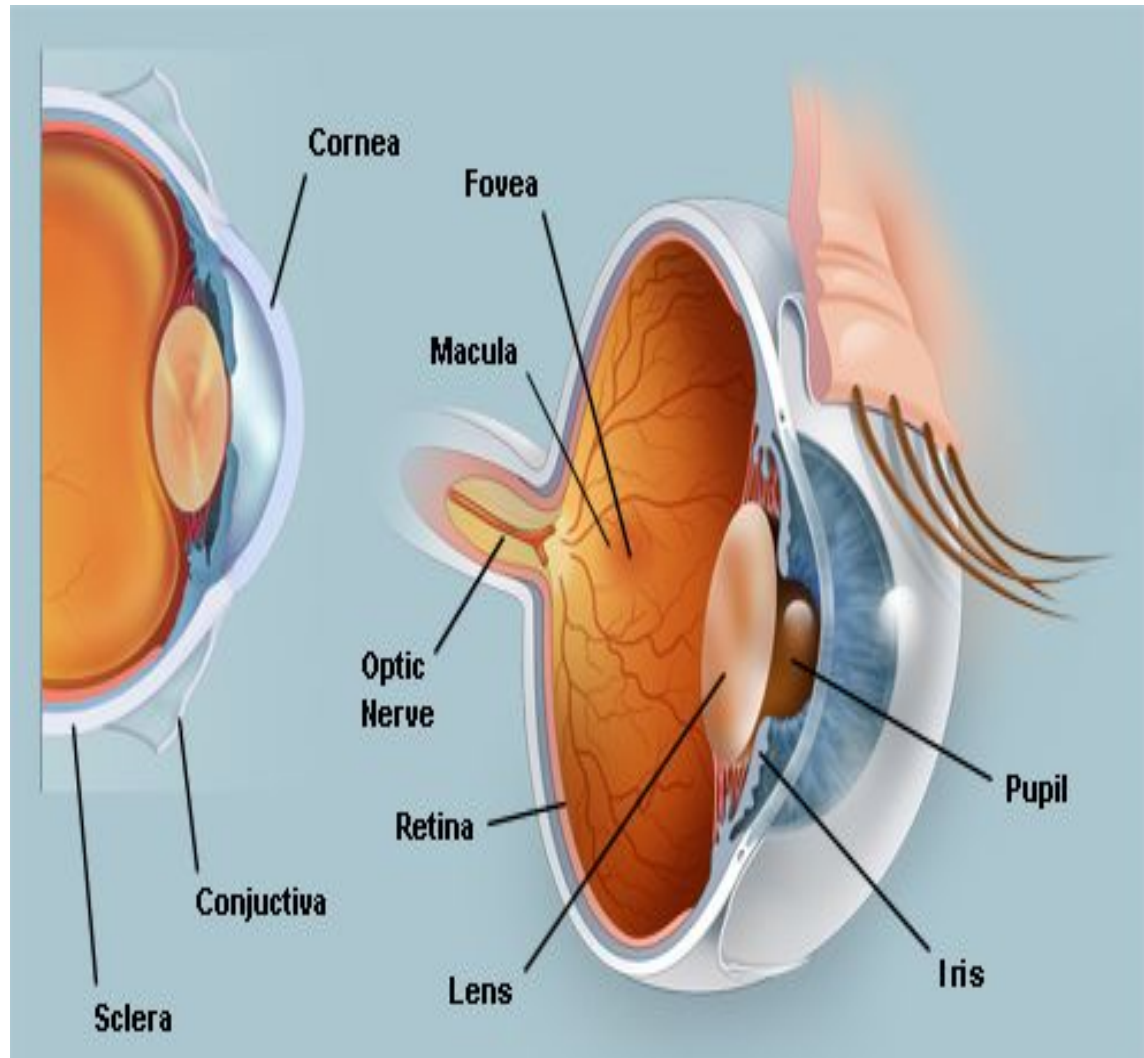
Choroid



- The diameter of iris is related to the amount of light
- It narrows under ***intense (bright) light*** but widens in ***dark (dim light)*** conditions
- The size of pupil is controlled automatically by nervous system

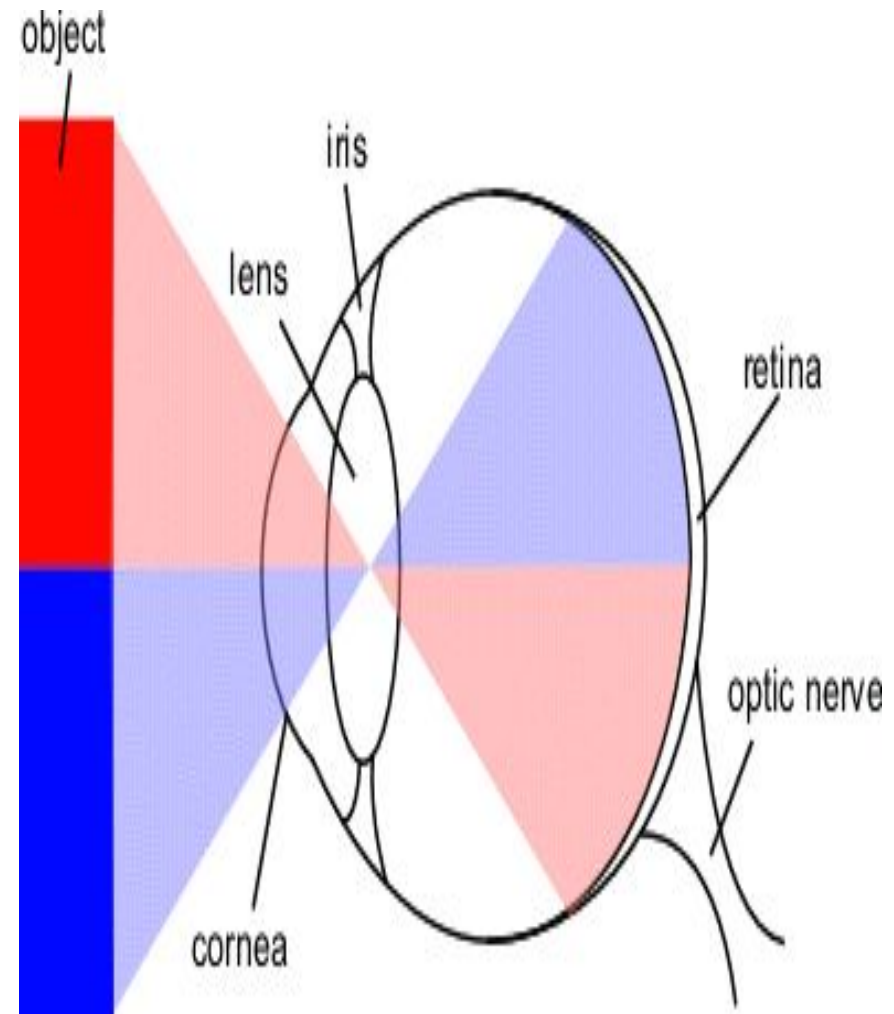
RETINA

- Innermost layer of the eye, the retina contains the light receptor
- At the rear of the eye, the retina is attached to the **optic nerve** which carries impulses from the light sensitive cells to the brain



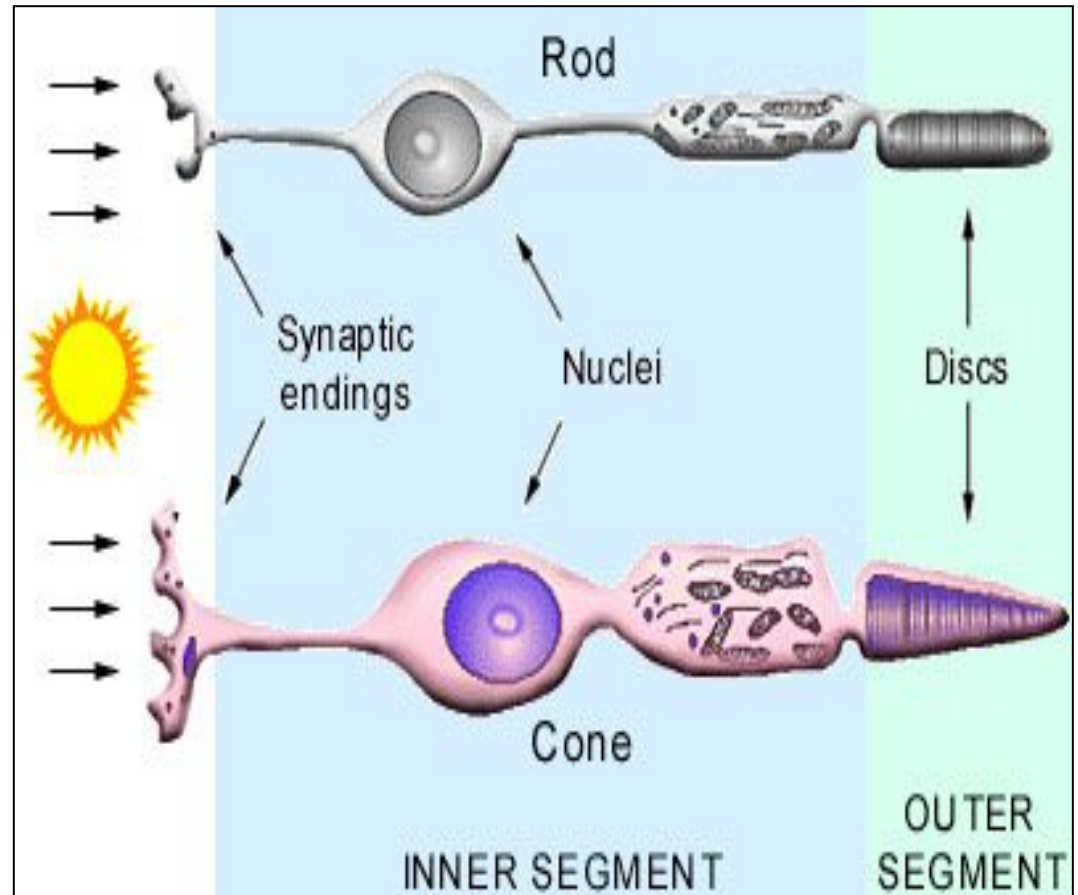
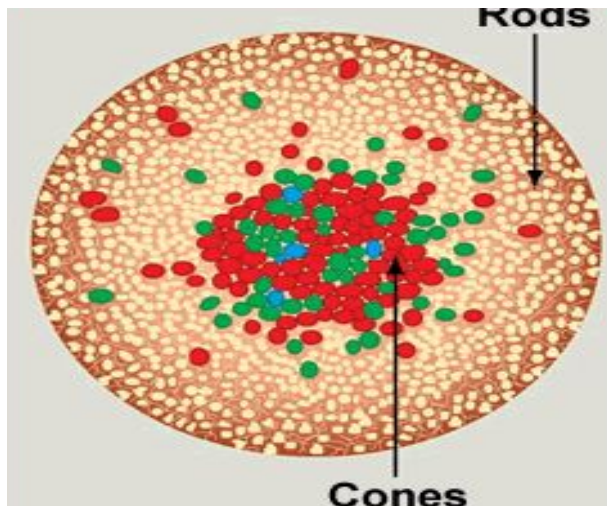
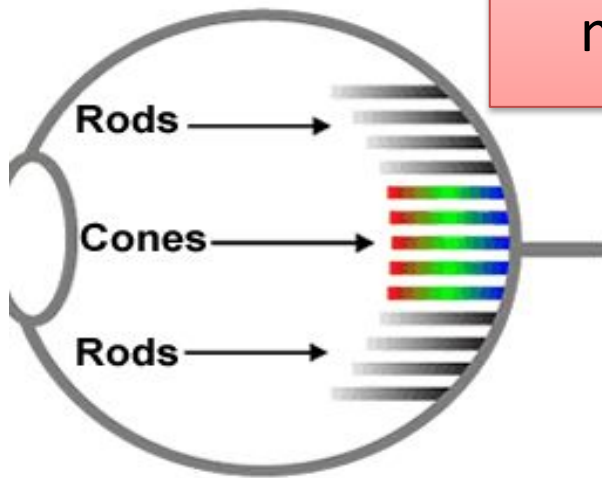
VISION

- Light entering the eye passes through the cornea, pupil, lens and forms an image on the retina
- Retina contains light sensitive cells which are called cones and rod



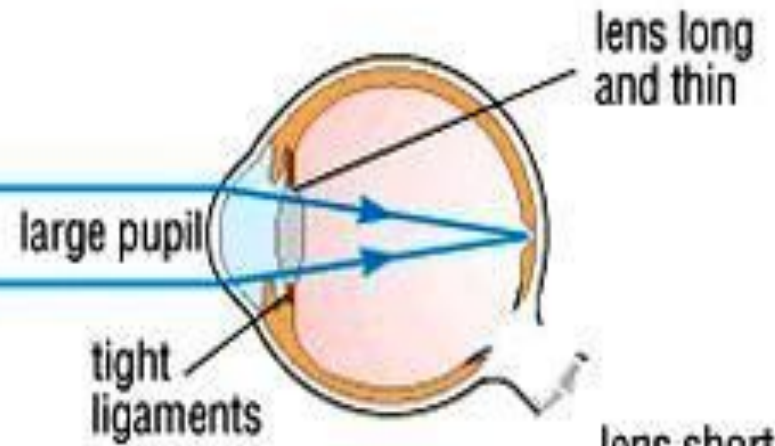
VISION

- ***Cones*** are sensitive to color
- ***Rods*** are sensitive to light, but not to color (black and white)
- The retina contains 125 million rods and 6,5 million cones



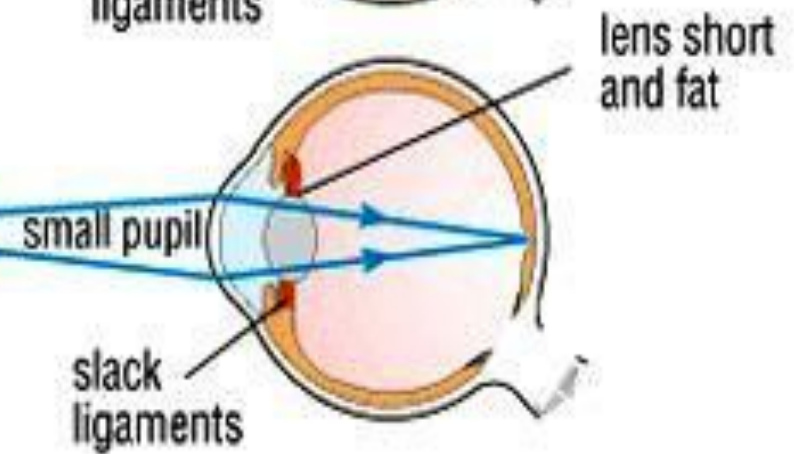
distant object

house far away
from the eye



close object

pencil near
the eye





**Directed Reading for
Content Mastery**

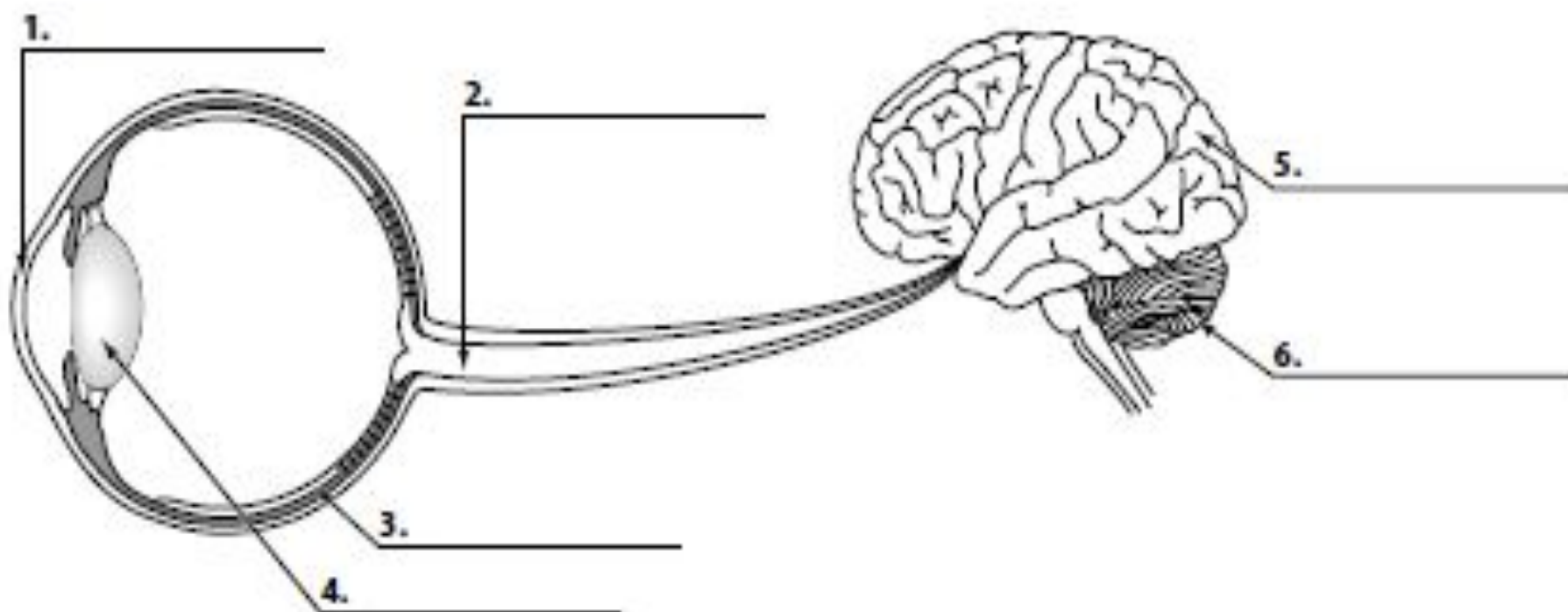
Section 2 ■ The Senses

Directions: Study the following diagram. Then label the parts of the eye and the major parts of the brain using the correct terms from the list.

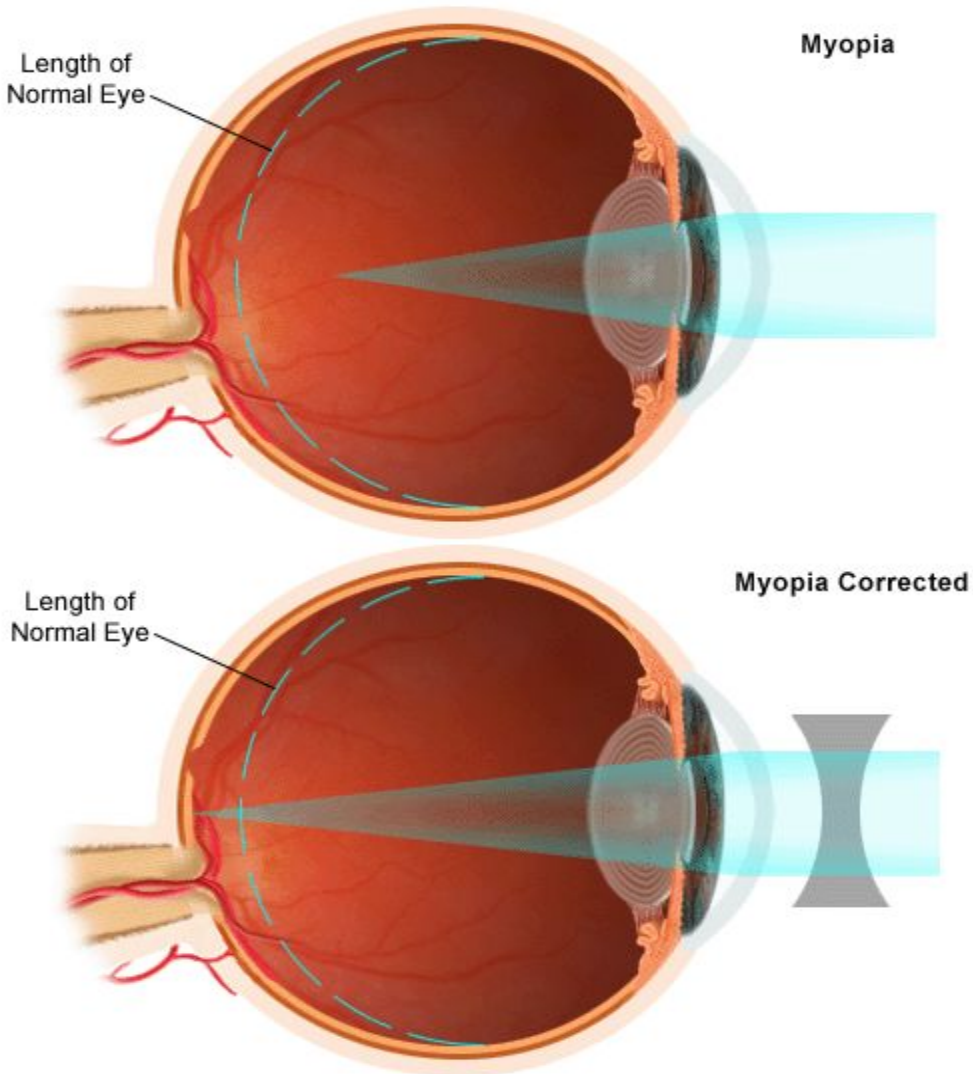
retina
optic nerve

cornea
lens

cerebrum
cerebellum



Myopia (nearsightedness) - близорукость



- The light rays focus in front of retina
- Close objects are seen clearly
- This condition can be corrected by wearing glasses or contact lenses with concave lenses

Hypermetropia (farsightedness) - дальнозоркость

- Light focuses behind the retina
- Far things are seen better
- This can be corrected with convex lenses

