

Vision and the Eye – Vocabulary Reference for Teachers

lens – a transparent lentil shaped tissue which focuses light onto the retina of the eye.

rods - these are numerous cells which detect very small amounts of light coming into the retina of the eye. They cannot detect color.

cones – cone cells detect three colors of light coming into the retina of the eye. They are less common than rods and found mainly in the center of the retina.

retina – several layers of light receptors and blood vessels lining the back of the inside of the eyeball. The optic nerve collects all of the nerve fibers from the retina and connects them to the brain.

optic nerve – all of the light receptors in the retina come together into one large nerve which feeds directly into the brain's occipital area which houses the powerful visual processing center.

pupil – the opening at the front of the eyeball through which light enters to reach the retina. Small muscles around the pupil expand and contract the pupil to control how much light can enter the eye.

iris – surrounding the pupil is the colored ring which expands and contracts to control the amount of light which enters the eye.

cornea – a clear living tissue covering the pupil, iris, and lens. The cornea provides two thirds of the eyes focusing power and protects the eye from minor damage. Very painful if scratched.

sclera – this is the white 'outer' part of the eye. Often there are tiny blood vessels visible in this region.

conjunctiva – a thin, clear membrane which covers the sclera. It secretes fluid and oils which help protect and lubricate the sclera. It is sensitive to allergens and can be infected by pathogens.

vitreous (humor) – this clear gel fills the inner eye and gives it shape.

aqueous (humor) – this clear fluid fills the space between the cornea and the lens.