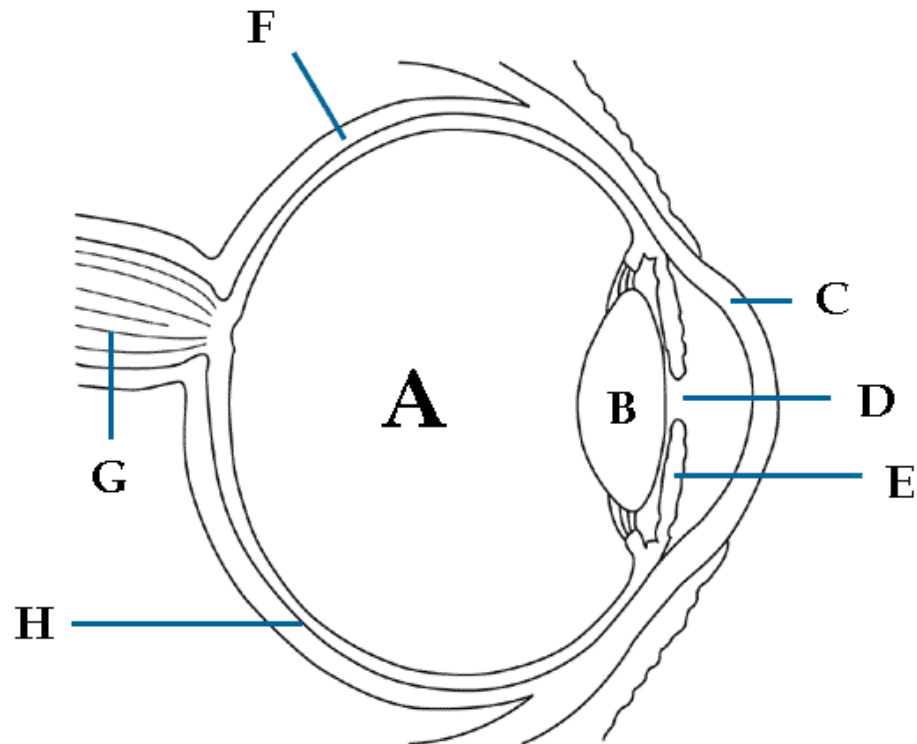


Diagram of the Eye



Teacher's Key:

A- Vitreous humor

B- Lens

C- Cornea

D- Pupil

E- Iris

F- Sclera

G- Optic Nerve

H- Retina

The Lens: Focusing the eye is accomplished by a flattening or thickening (rounding) of the lens. By altering its shape, the lens can focus on near and far objects. The lens becomes flatter for distant objects and rounder for closer objects.

Cornea: The front of the eye is protected by the thick transparent cornea, which like the lens, also bends light rays.

Sclera: The sclera is the tough, white, outer layer or coat of the eyeball, and it protects the entire eyeball.

Pupil: The Pupil is the opening in the iris, which permits entry of light into eye. Through the opening and closing of the iris' circular muscles excessive light is prevented from falling on the retina and damaging the light-sensitive photoreceptors.

Iris: The iris contains circular and radial muscles. Different contractions of the two sets of muscles have the effect of varying the size of the pupil hole. The iris is also what determines our eye color. Eye color depends on the amount of pigment on the back of the iris, which is constant, and the amount at the front, which is variable. The more melanin pigment found in the iris, the darker the eye color will be.

The Retina: The retina is nourished by a layer rich in blood vessels called the choroids, which are found immediately beneath it and protected by a thick connective tissue coat called the sclera. Heavy pigmentation in the choroids layer and in the epithelium on its inner side shields the retina and prevents light being reflected within the eye.

-The blind spot is a small area of the retina where the optic nerve actually enters the eye, this occurs normally in all eyes. It results in a gap in the visual field, which corresponds to an area of the retina where no visual cells are present.