About the Eye

THE EYE, despite its extraordinary complexity, has two basic functions:

To focus light rays on the retina.
To create an image to send to the brain.

Broadly speaking, the front of the eye does the focusing, and the back of the eye does the "processing" to create the visual image, which the optic nerve then sends to the brain.

This is roughly analogous to the lens of a camera doing the focusing and the film in the camera creating the image.

In the eye, the focusing of light is carried out by the cornea, the front surface of the eye, and the lens, the natural focusing structure inside the eye.

Just as in a camera, there is an important role for the iris, which controls the size of the pupil, regulating the amount of light entering the eye and enhancing focusing.

The retina does the work of creating the image. Light stimulates the rods and cones, the light receptor cells in the retina, in a pattern reflecting the shape, size and location of the object which was the source of that light.

Finally, the retina transforms the image into electrical impulses which are sent through the retina to the optic nerve and then to the brain, which can interpret the image.