

How the eye works :

Sight is an amazing process made possible by many parts of the eye working together.

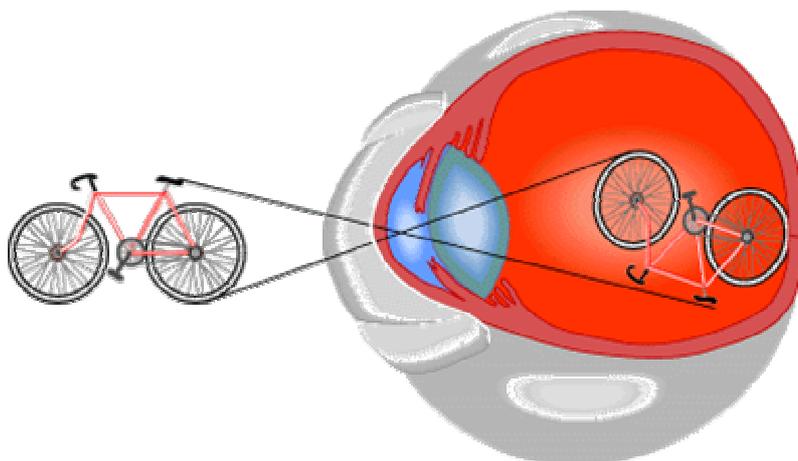
If you look at the diagram of the eye over the page you will see the major parts of the eye illustrated.

Light enters the eye and is bent by the **cornea** (the window of the eye) to pass through the **pupil**.

The light then passes through the **lens** (behind the pupil) which enables the image to be focused onto the **retina**.

The retina changes the light image (energy) into electric impulses that are carried through the **optic nerve** to the vision centre of the brain where the image is interpreted.

The picture below shows how the view of the bicycle is focussed onto the retina



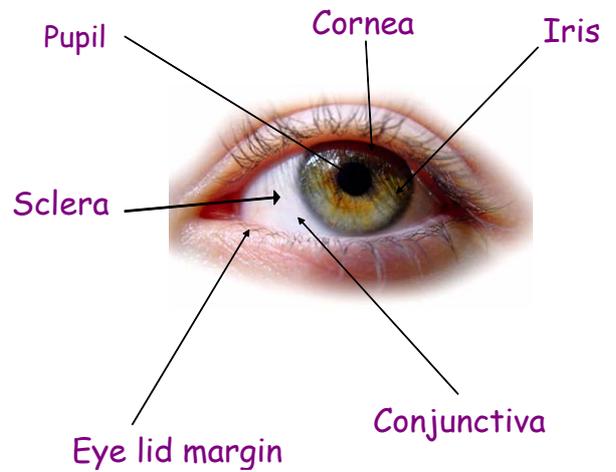
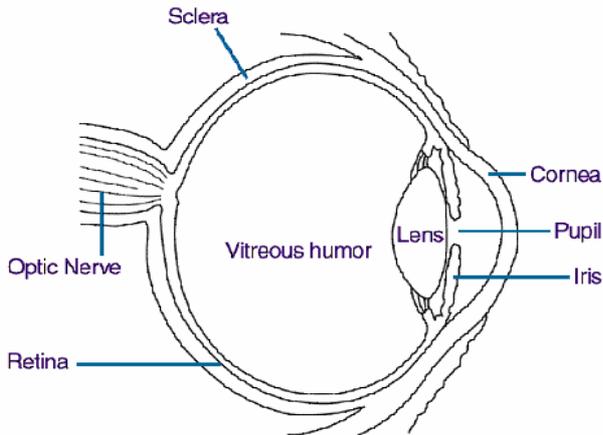
By a strange trick of nature and physics the image on the retina is an upside down version of what you actually see. The brain processes the image so we can see things the right way up.

For people with normal vision the image hits bang smack on the retina and this is represented in the Normal Focus picture over the page. The light coming into the eye is bent to come together right on the back of the eye.

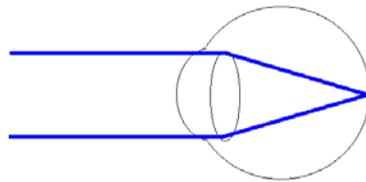
For short-sighted people the light bends more sharply in their eye and comes together short of the retina making the image blurry. Things far off are hard to see clearly.

For long-sighted people the light does not bend sharply enough to make a clear image on the retina and they will have trouble seeing close up things clearly.

Diagram of the Eye



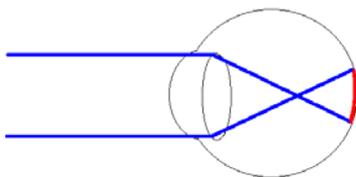
Normal Focus



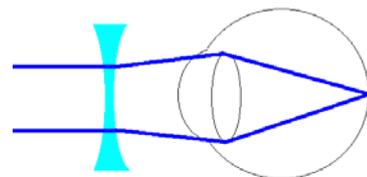
Short Sightedness (Myopia)

Distance vision blurry, near usually OK.

Short-sighted focus



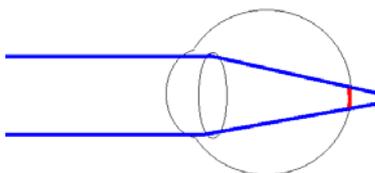
Short-sighted correction



Long-sightedness (Hyperopia)

Difficulty seeing clearly and comfortably up close.

Long-sighted focus



Long-sighted correction

