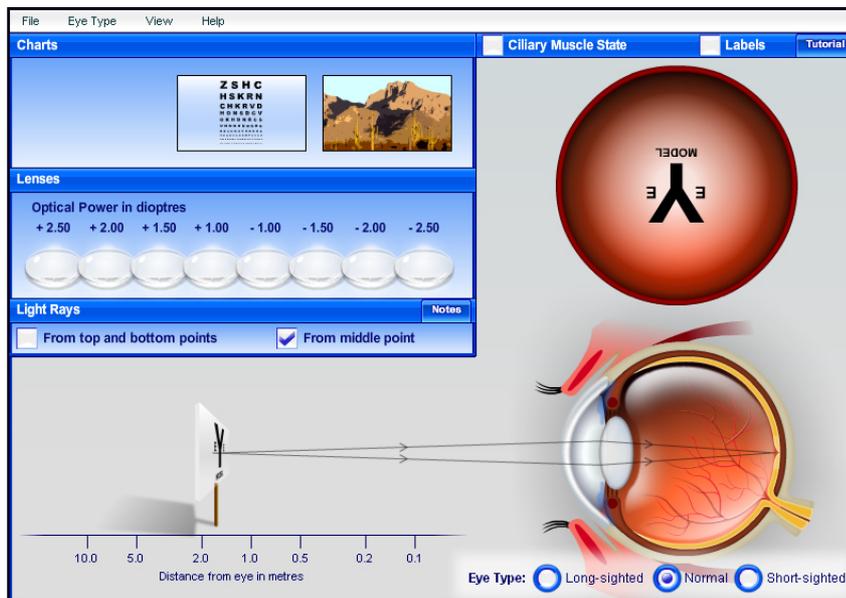




Virtual Eye



This interactive, PC-based simulation provides students with an excellent introduction to the human eye.

Students can investigate how the parts of the eye work to enable us to focus on objects at varying distances.

Students can experiment with optical lenses to correct some common eyesight problems.

Eye Charts

Students can place one of three eye charts before the eye and see how the image of the chart appears on the retina of the eye. The eye charts include:

- Letter 'Y'
- Letterboard
- Picture

The distance between the eye and the chart can be varied to see how this affects the image on the retina.

Light Rays

Specific light rays can be viewed to help understand why the image on the retina appears as it does.

Light rays from the top and bottom points of an eye chart demonstrate why the image is upside down as the light passes in a straight line through an aperture at the front of the eye.

Light rays from the middle point of an eye chart demonstrate how light rays are refracted on their journey from the chart to the retina.

Muscle Control

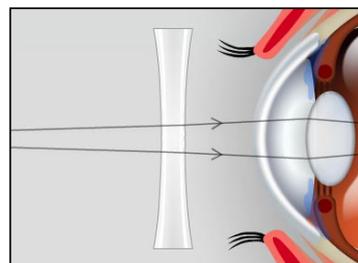
The Ciliary muscle around the eye will contract and relax automatically, attempting to keep an image focused on the retina. Students can choose to control the muscle manually – relaxing and contracting the muscle to see how this affects the lens and the resulting focus of the image on the retina.

Eye Types

Three eye types can be examined; far (long)-sighted, normal and near (short)-sighted.

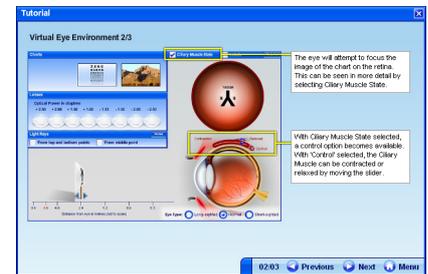
By experimenting with eye charts students can discover the distances at which the eyes can and cannot focus an image on the retina.

Lenses



Students can place one of eight lenses in front of the eye and see how this affects the light rays traveling from an eye chart to the retina and how, in turn, this affects the focus of the image on the retina. The lenses range in power from +2.50 to -2.50 dioptres.

Tutorial



The simulator includes a tutorial section, introducing students to the Virtual Eye environment.

Minimum Computer Requirements

- Windows® 2000 or later
- 50 MB free hard disk space
- Flash player v9 or later (supplied on CD)

Languages Supported

- English (US)
- English (GB)
- Spanish

Order as:

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