

Activity: How Light Affects your Eye

Step 1: Choose a partner.

Step 2: Partner one covers their right eye with their hand for 30 seconds, then uncovers it.

Step 3: Partner two observes closely as partner one uncovers their eye.

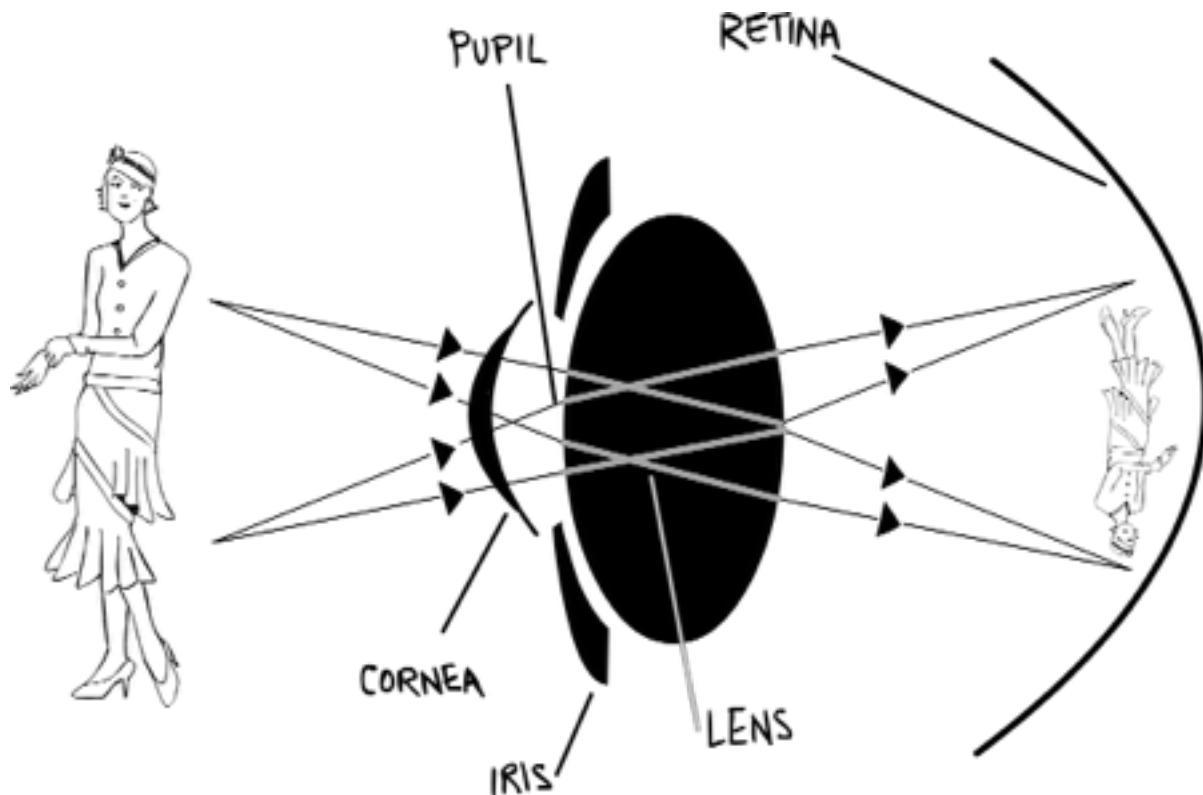
Step 4: Notice what happens to the eye.

Step 5: Partner one and partner two trade roles.

What happens to light when it enters your eye?

Light bounces off the lady and enters your eye passing through the cornea, iris, pupil and lens. As it passes through the cornea nothing much happens, but the pupil changes size, getting larger or smaller depending on the amount of light entering the eye. If there is too much light the pupil gets smaller to protect your sight. When the light hits the lens it is refracted or bent, and the image flips upside down.

The inverted image lands on the retina and is sent to the brain, where it is turned right side up. For a more detailed description please visit <http://faculty.washington.edu/chudler/bigeye.html>



Lesson 3 Worksheet

Activity: Create a Flip Book

A flip book is a book with a sequence of images that progress forwards or backwards gradually from one page to the next, so when the user turns or "flips" the pages sequentially in a specific direction, the images appear to be animated. In the examples above, the image transforms "over time," meaning the longer you flip, the more things change. Making a flip book will help you understand how persistence of vision works, and can help you visualize the potential of a single shot.

All animated television shows and movies use the same principle as a flip book.

Now you will make a flip book of a simple action. *Check out our suggested video for flip books so you can see one in action.*

Follow the steps below to make a flip book. Before you start to draw, decide who and what is in your flip book, what they are doing and where are they in the location?

Practice: Before you make your flip book, make a practice one, drawing only stick figures. Try to animate a sequence of pages of your stick figure jumping, or walking. Then add a simple background like a tree, a cloud or bird. Then add in another element like a house or a street.

Steps:

1. Decide on the number of pages you want to make your flipbook. This can be any number of pages you feel that you can draw or decorate. You may want to start with a short ten-page flip book.
2. Ensure all your pages are the same size. Secure the pages together with tape at the top.
3. Draw your pages. To make it look as if it is moving, you change the image only slightly on each page. This may take a bit of practice.
4. Test out your flip book. Flip through the pages and see if it looks like you would like. If you have drawn with pencil, you can go back and make small changes.
5. Decorate your pages. Once you have drawn your image, you may want to put in backgrounds or other items. Remember to vary them only slightly from page to page.

Read more: [How to Make a Flip Book | eHow.com http://www.ehow.com/how_2089446_make-flip-book.html#ixzz0xNyWjdCW](http://www.ehow.com/how_2089446_make-flip-book.html#ixzz0xNyWjdCW)

Compare flip books with your classmates!

