

# Lens Demonstration

An eye with a lens takes in more light than one without a lens. A lens bends light coming into the eye to form a miniature image on the retina at the back of the eye.

If our eyes were lens-less like the “pinhole” eyes of the nautilus, then our head would need to be one meter across in order to take in the same amount of information.

## Instructions

You will need a magnifying glass and a piece of paper.

### Part 1

You will need to be in a room with overhead light(s) switched on.

1. Place the paper on a table, floor, or other flat surface.
2. Hold the magnifying glass a few inches above the paper. Move it up and down and tilt it to focus. You should be able to form a focused, miniature image of the overhead lights on the paper.

### Part 2

You will need to be in a room with a well-lit window.

1. Hold the paper upright or against a wall, out of direct sunlight.
2. Hold the magnifying glass a few inches in front of the paper. Move it forward and back and tilt it to focus. You should be able to form a focused, miniature image of the window scene on the paper.

## Question

What do you notice about the orientation of the image?

*(Adapted from <http://ssrsbstaff.ednet.ns.ca/jcroft2/lens.htm>)*