A pair of "drugstore" reading glasses ("Weak" glasses—those with low numbers—will work the best)
A magnifying glass
A flashlight
Masking tape
A piece of waxed paper or thin typing paper
A friend

To Do and Notice
You're about to make a telescope. One lens of the reading glasses will serve as the objective lens of the telescope—the lens that gathers light from stars or other objects. The magnifying glass will be the eyepiece. This telescope won't have a tube—that's so you can see how an image is formed inside a telescope.
To keep your "objective lens" steady, tape the glasses to a coat rack, the back of a chair, or any other object, making sure that one lens sticks out into space.

Set the flashlight on a table four meters (thirteen feet) or more from the glasses. Turn the flashlight on and shine it at the lens.

Hold the paper in front of the lens on the side opposite from the flashlight. Then walk away from the lens, perhaps as far as a meter, until you see a small image of the flashlight on the paper. Normally, this image is formed inside the tube of the telescope and can't be seen directly. This is the focal point of the objective lens.

Have your friend hold the paper at the focal point. Face the back side of the paper and look at the image through your magnifying glass. Adjust the position of the magnifying glass until the flashlight image is magnified.
5 Have your friend take the paper away, but continue looking through the eyepiece of your telescope. The image should be a lot brighter since the paper won't be diffusing the light.

6 Try looking at other objects that are near the flashlight by slightly moving the eyepiece up, down, and from side to side.