

HOW DOES A MAGNIFYING GLASS WORK?

Exploring Light and Optics

Why do things appear larger if you look through a magnifying glass from a short distance away?
Draw a diagram and/or try to write an explanation in simple words.

Why do things appear upside down if you back away from the magnifying glass farther and look through it?
Draw a diagram and/or try to write an explanation in simple words

Can you use two magnifying glasses and get the image to appear right side up? Why/why not? Be sure to test your theory.

Put the magnifying glass directly under a light fixture on the ceiling and about 10-20 cm above a white sheet of paper. Can you make an image of the light fixture appear on the paper?

Describe or sketch the image.

Put the magnifying glass between a window and a white sheet of paper on a clipboard or taped to a wall- about 10-30 cm from the wall. (This will only work on a sunny day.) Can you make an image of something outside the window appear on the paper? If so, describe the image.

Trace the image on the sheet of paper.

What do you see on the side of the magnifying glass nearest the window? Describe it and explain why/how this occurs.

How could you apply what you have explored in this activity in your teaching?

For more inspiration and explanations, look to these links:

<http://www.thenakedscientists.com/HTML/content/kitchenscience/exp/images-from-a-magnifying-glass/>

http://www.opticalres.com/optics_for_kids/kidoptx_p2.html