



MOVING PICTURES

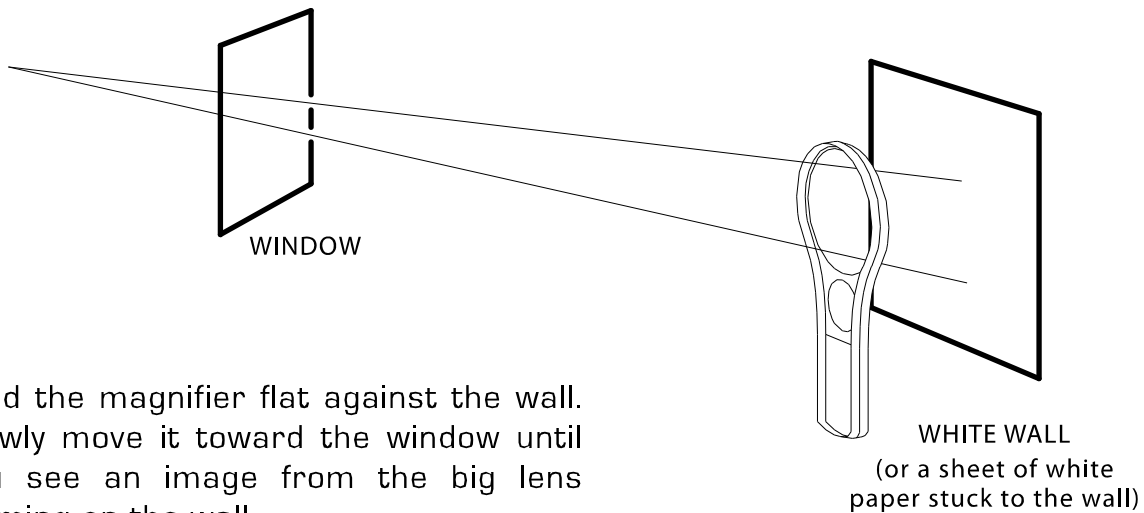
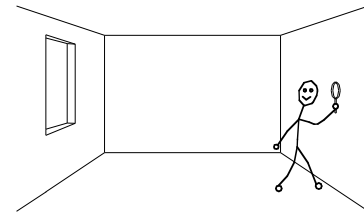


This is a fun experiment. It's also fun to try it at night with a light or a candle.

WHAT YOU NEED: A window with a daytime view, a magnifier, an index card and a ruler.

WHAT TO DO:

Darken a room except for the windows on one wall. Begin this experiment on the opposite wall.



Hold the magnifier flat against the wall. Slowly move it toward the window until you see an image from the big lens forming on the wall.

OBSERVATIONS:

What is the image a picture of?

Is there anything odd or unusual about the picture?

MORE OBSERVATIONS:

Continue to watch the image while someone walks in front of the window. What do you observe?

Measure how far you have to hold the lens from the screen to focus the image.

Big Lens

centimeters

Small Lens

centimeters

HALF A LENS . . . IS BETTER THAN NO LENS AT ALL!

Imagine if you covered the **top half** of the lens with a card or paper. What would happen to the picture?

What do you think would happen?
Make a prediction here:

Try it and see! Record the
results of the experiment here:

Why do you think this happened?
Try to invent a theory to explain it!

A slide projector uses a lens to focus an image from a slide onto a screen. Based on your observations, should slides go into the projector right side up or upside down?

