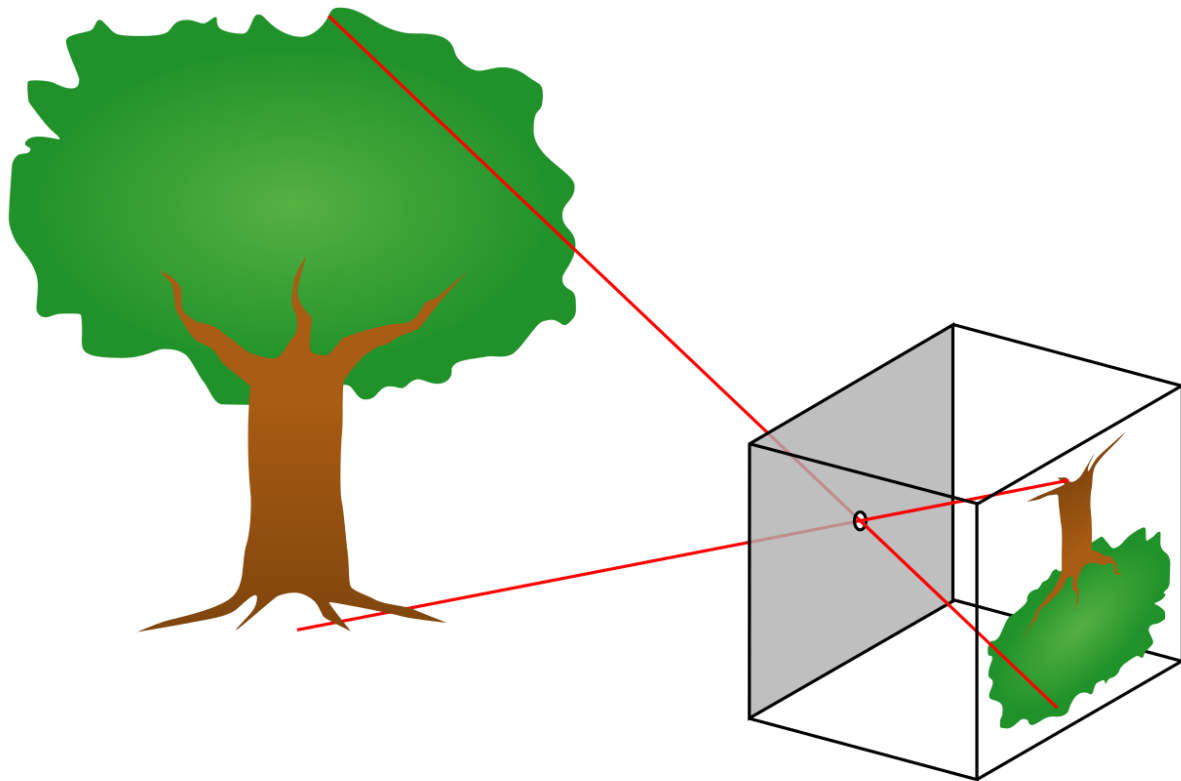


Name:

This week we'll be exploring how to form an image with only a pin hole and a dark box. This apparatus is commonly called a "pinhole camera". This comes a bit out of left field considering for most of our lives we've only been exposed to images formed via lenses or mirrors. It turns out that pinholes and other diffractive optics can also form images.

To construct your camera you'll need a box, some aluminum foil, a box cutter, and tape. First you need to cut a hole in the box. You'll then cover that hole with aluminum foil. Poke a small hole in the aluminum foil. Lastly, you'll need to cut another hole in the box so that you can see the image formed on the inside of the box.



- 1) How did the size of your pinhole affect the image quality?
- 2) What issues did you run into when constructing your camera?
- 3) Would multiple holes make the image sharper?
- 4) Google "Diffractive optics" and describe how they work to the best of your ability