Curiosity Guide #203 Refraction of Light



Accompanies Curious Crew, Season 2, Episode 3 (#203)

Water Droplet Magnifier

Investigation #6

Description

Amaze yourself with the power of a drop of water!

Materials

- Wax paper
- Scissors
- Magazine clippings
- Pipette or eye dropper
- Container of water
- Magnifying glass

Procedure

- 1) Cut a 4 by 4 inch piece of wax paper.
- 2) Lay the wax paper square on top of a page from a magazine so that it is over small, typed print.
- 3) Fill the pipette with water.
- 4) Make a water droplet in the center of the wax paper.
- 5) Look through the droplet at the letters on the page.
- 6) What do you notice?
- 7) Experiment with different sizes of water droplets.
- 8) Look through a convex lens magnifying glass at the same print.
- 9) What do you notice? How do the water droplets and the magnifying glass relate?

My Results

Explanation

Wax paper repels water, so the droplets stay together well and form bubbles of different diameters. The curved top to the bubble acts like a convex lens and magnifies the letters on the page. The smaller the droplet, the more curved the top of the lens, and the greater the light is bent and magnified.

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