



Water Microscope

Get ready to explore the microscopic world with this easy to build and functional water microscope!



Fun Facts/Information:

- In this activity, water acts as a convex lens, bending light to magnify objects placed below it.

Objectives:

- Students will create a water lens microscope to magnify smaller objects placed underneath.



Materials:

- Large googly eye (1 inch or larger)
- Scissors
- Paper cup
- Pencil
- Tape
- Water
- Things to magnify

Procedure:

Safety Considerations

- Be careful removing the backing of the googly eye, you may need adult help to safely remove it.
 - Be careful using scissors when cutting the cup.
 - Make sure to clean up any water spills!
1. With adult help, cut the backing off the googly eye and take it apart. We will be using the cover to hold our water.
 2. Trace the plastic eye cover on the bottom of the cup, then trace two “U”’s on the side of the cup.
 3. Cut along the lines so that the eye cover can fit snugly in the hole in the bottom of the cup.
 4. Cut along the “U” lines to make two legs on each side of the cup, and space to slide things underneath. This also allows light to be on both sides of the cup which you’ll need to make the lens work.

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5. Tape and secure the edges of the eye cover to the cup so you can place water inside easily but it stays secure. The curve of the eye cover will go towards the inside of the cup.
6. Spoon some water into the eye cover and place an object underneath. It should look bigger as you look through the water!

Discussion Questions:

- Why did the water make the object look bigger?
- What kinds of objects can you place under the water microscope?
- How would you change the microscope to make it see larger or even smaller objects?

Extensions:

- Students can look at things that need magnification or use it to search for objects hidden in pictures, making a spy type game or search game.
- Try looking at living things as well – plants, flowers, insects, leaf cuttings, there's so many objects you can choose from in your backyard!

For more activities, please visit us at www.alcosan.org/educational-activities.

