



## Curiosity Guide #602

### Bubble Science

Accompanies Curious Crew, Season 6, Episode 2 (#602)

#### Handy Bubbles

Investigation #1

#### Description

Catch a bubble in your hand!

#### Materials

- Cotton gloves
- Liquid dish soap
- Glycerin
- Scissors
- Pipette
- Distilled water
- Measuring cup
- Measuring spoons
- Spoon
- Small glasses
- Large glass

#### Procedure

- 1) Measure one cup of water into the large glass.
- 2) Add 1 teaspoon glycerin to the glass of water and mix well with a spoon.
- 3) Mix in 1 Tablespoon liquid soap and stir the solution well.
- 4) Use the scissors to cut half the bulb off of the pipette to make the bubble blower.
- 5) Put the cotton glove on one hand.

- 6) With the other hand, dip the cut bulb into the solution to cover the bulb's surface with soap solution.
- 7) Gently blow into the pipette to form a bubble. Catch the bubble in the gloved hand.
- 8) What other materials could support the bubble?

## My Results

## Explanation

Bubbles form when two layers of soap trap a layer of water in between. As the water begins to evaporate, the thin layer bursts, and the bubbles pop. Adding the glycerin to the mixture makes the soap thicker. Thicker soap slows down the water's evaporation, and the bubble lasts longer. Thicker soap also makes blowing larger bubbles possible. When you touch a bubble with a dry finger, the water is attracted to the skin and the bubble pops. The cotton gloves not only provide a cushioned surface, but also prevent the bubble bursting from the oil and dirt on your skin.

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