

# \*Imagine<sup>TM</sup> Your Story\*



2020 Summer Reading

15-MINUTE SCIENCE EXPERIMENT

## Giant Bubbles

### Bubble Solution Ingredients:

6 cups distilled or purified water

1/2 cup cornstarch

1 Tbs. baking powder

1 Tbs. glycerine (Corn syrup may be substituted for glycerine.)

1/2 cup blue Dawn dish soap. (In this experiment, the type of detergent can literally make or break your giant bubbles.)  
Dawn Ultra-not concentrated, or Dawn Pro are also highly recommended. You can also use Joy detergent.

### To Make the Bubble Solution

1. Mix water and cornstarch.
2. Add remaining ingredients and mix well, without whipping up tiny bubbles. Use immediately, or stir again and use after an hour or so.

### Giant Bubble Wand Materials:

Around 54 inches of cotton kitchen string

2 sticks, each 1-3 feet long

A metal washer

1. Tie the string to the end of one stick.
2. Put a washer on the string and tie the string to the end of the other stick so the washer is hanging in-between, on around 36 inches of string. Tie remaining 18 inches of string to the end of the first stick to create a triangle.
3. With the two sticks parallel and together, dip bubble wand into mixture, immersing all the string completely.
4. Pull the string up out of the bubble mix and pull the sticks apart slowly so that you form a string triangle with bubble in the middle.
5. Step backwards or move the wands to create giant bubbles. You can "close" the bubbles by moving the sticks together to close the gap between strings.

### What's Happening?

Water molecules like to stick together, and scientists call this stickiness "surface tension." Soap molecules make it harder for water molecules to stick together. But when you blow a bubble made out of dish soap, you create a very thin film of water sandwiched between two layers of soap.

The thickness of bubbles is always changing slightly, as are their colors due to light hitting the bubbles from many different angles, causing light waves to bounce around.



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