



BOUNCING BUBBLE

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

INGREDIENTS

- 9 oz Clear Plastic Cup
- Water
- Glycerin
- Dishwashing Liquid
- Bubble Wand
- Cotton Glove

INSTRUCTIONS

STEP 1: Fill the clear plastic cup 1/2 of the way with water. Describe and classify the water by its observable properties.

STEP 2: Fill the clear plastic cup 1/4 of the way with dishwashing liquid. Describe and classify the dishwashing liquid by its observable properties.

STEP 3: Add 1 teaspoon of glycerin to the clear plastic cup and mix to create a bubble solution. Describe and classify the bubble solution by its observable properties.

STEP 4: Place the cotton glove on your hand.

STEP 5: Using the bubble wand, blow bubbles. Describe and classify the bubbles by their observable properties.

STEP 6: Catch a bubble and bounce the bubble on the cotton glove. Describe how the bubble can be used as a model to describe that matter is made of particles too small to be seen.

EXPLANATION

A bubble is a thin film of soapy water, filled with air. A bubble contains three main layers. Sandwiched between two soapy layers, is a layer of water. Bubbles burst when this layer of water evaporates. The glycerin creates bonds with the water molecules, slowing down evaporation, creating a stronger bubble. The glove prevents the bubble from hitting your hand, which may contain dirt and oil. The dirt and oil, from your hand, will cause a bubble to burst.

WATCH NOW



SCIENCE BACKGROUND

Matter is anything that has mass and takes up space. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. Matter of any type can be subdivide into particles that are too small to see, but even then the matter still exists and can be detected by other means.

I CAN STATEMENT

- ✓ I can plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- ✓ Develop a model to describe that matter is made of particles too small to be seen.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter | Patterns

5 – Matter and its Interactions | Scale, Proportion, and Quantity