



GHOST 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

- Dry Ice
- Large Bowl
- Dish Towel
- Dish Detergent
- Water
- Ruler

INSTRUCTIONS

STEP 1: Fill the large bowl half of the way with warm water. Describe and classify the water by using its observable properties.

STEP 2: Using gloves, add a piece of dry ice to the large bowl of warm water. Describe and classify the dry ice by using its observable properties.

STEP 3: Using scissors, remove a long strip from the dish towel. Wet the long strip of dish towel. Squeeze some of the dish detergent onto the long strip of dish towel. Describe and classify the dish detergent by using its observable properties.

STEP 4: Drag the soapy strip of dish towel along the top of the bowl, so a bubble forms on top of the large bowl of warm water and dry ice.

STEP 5: Using the ruler, make observations and measurements of the bubble, based on its properties, to determine how big the bubble will get before popping each time.

EXPLANATION

When the dry ice is placed into the warm water, a ghost or a cloud forms. Dry ice is frozen carbon dioxide gas and is -109.3°F . As dry ice breaks down it turns directly into carbon dioxide gas. When matter goes from a solid to a gas, it's called sublimation. The bubble is filled with the ghost or cloud, which is created by the dry ice sublimating. When the bubble pops, the ghost or cloud escapes.



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. Measurements of a variety of properties can be used to identify matter. Different properties are suited to different purposes.

I CAN STATEMENTS

- ✓ I can plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- ✓ I can make observations and measurements to identify materials based on their properties.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter

5 – Structure and Properties of Matter

