



California State University

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## GHOST BUBBLES

### INTRODUCTION

Hey kids! Today you get to make cool bubbles that look like ghosts. For this simple reaction, we will mix water and liquid soap in a small container. Then, we will assemble a container that has a hose connected to it. Inside the hose we will add warm water and dry ice. This will help speed up the formation of gas. The hose attached to the container will have a nozzle on it and will be dunked in the soapy mixture. As a result, the gas pressure will form a bubble. If done carefully, you will get to see bubbles quickly forming that have a ghostly white gas inside them!

### MATERIALS

- 1 cup of dry ice
- Insulated gloves for handling dry ice
- 2 cups lukewarm water
- 1 tbs. Liquid soap
- Some water to mix with the soap
- 1 rubber hose
- 1 plastic nozzle
- A jar with a hole in the lid to fit the hose
- Safety glasses
- Cotton towels for the bubbles to land on

## **SAFETY**

- Always wear your safety glasses while performing a chemistry experiment.
- You are working with dry ice so have an adult wear insulated gloves to place it in the jar.
- Be careful dry ice is very cold!

## **PROCEDURE**

1. Mix 1 tbs. liquid soap with water to your liking in a small container.
2. Get a jar that has a lid
3. Puncture a hole in it big enough to tightly fit the hose in it.
4. Take the rubber hose and place it in the punctured hole. If it fits loosely, use tape to make a good seal.
5. Place a plastic nozzle or something equivalent on the end of the rubber hose.
6. In the jar, add the water and then the dry ice.
7. Dunk the nozzle in the soapy mixture.
8. Cap the lid and watch the bubbles form.

## **DATA AND OBSERVATIONS**

Record your observations and measurements here.

## **QUESTIONS**

Why was warm water used?



What color is the gas?

## **REFERENCES**

<http://www.stevespanglerscience.com/experiment/hydrogen-peroxide-eruption>