

Pressure Labs

Imploding Can Lab:

Materials: Hot Plate, can, water, graduated cylinder, hot mitt, bowl with water

Procedure:

1. Put 5 mL of water in a soda can and put it on the hot plate.
2. When you see lots of steam come out of the top of the can and the can seems to be empty of most water, quickly pick up the can and place the mouth in the bowl of water.

Describe what happens.



Conclusion: What made the can implode?

Create a Vacuum Lab (Balloon Experiment)

Materials: Balloon, Flask, Hot plate, Hot Mitts, Water, Graduated Cylinder

1. Put 10 ml of water in the flask. Put the flask on the hot plate.
2. Remove the flask using hot mitts once the water is boiling and you see steam. **DO NOT LET ALL OF THE WATER EVAPORATE!**
3. QUICKLY, stretch a balloon over the mouth of the flask. Observe the balloon. **Describe what happens.**



Bubbles

Materials:

Water and soap mixture, chenille sticks

Procedure:

1. Shape a chenille stick like a circle. Put the circle in the soap mixture and then blow a bubble.
2. Using another chenille stick with a different shape, make a bubble.

Conclusion:

Describe what shape is produced.

Why do you think this shape is created?



Smoke Rings

Materials:

Cup, Balloon, Razor Blade, Bunsen Burner, Striker, Scissors

Procedure:

1. Heat a razor blade with the Bunsen burner. Once heated, use the razor blade to cut a shape in the bottom of the cup.
2. Cut the balloon end off (where you blow into). This way you can stretch the remaining balloon over the mouth of the cup.



3. Stretch the balloon over the mouth of the cup.
4. Go to the fume hood where the fog machines are. Put fog in the cup and gently tap the balloon.



Conclusion:

Describe what shape is produced.

Why do you think this shape is created?

Nerf Dart and Flask (Chemical Reaction)

Materials: Flasks, Nerf dart, baking soda, vinegar, graduated cylinder, scale, Paper Towel

Procedure:

1. Pour 10 ml of vinegar into the flask.
2. Put 5 grams of baking soda on a paper towel.
3. Quickly dump the baking soda into the flask.
4. Quickly push the nerf dart in the opening of the flask. Make sure you **SEAL** it.
5. Start timing as soon as you put the dart in the flask.

Conclusion:

How long until the dart popped off?

What creates the pressure in the flask?