



MAKE YOUR OWN (1 of 2) FIRE EXTINGUISHER

 25-35 minutes +
questions and journal time

 Follow all safety instructions from LearnLibre.com
during the experiment.

Before the Experiment

Ask an Adult. This experiment should be performed by an adult who has read and understands all fire safety considerations found with this experiment at LearnLibre.com.



Materials

- Baking soda
- Vinegar
- Empty bottle
- Balloon
- Beaker or cup
- Candle
- Match or lighter
- Contained fireproof surface

Procedure

*Any flames should be lit on your contained, fireproof surface.

Part 1

1. Light your candle.
2. Fill your beaker with air (you don't really need to do this step, it is already full of air).
3. Pour the air in your beaker onto the candle.
4. Put the candle out by covering it with an empty glass.
 - Did anything happen?
 - Do you know what a "control" or "control group" in a science experiment is? If not, try to guess, and then look it up!

MAKE YOUR OWN (2 of 2) FIRE EXTINGUISHER

Part 2

1. Pour 2 teaspoons (10mL) of vinegar into the bottle.
2. Put 1 teaspoon (5mL) of baking soda into the balloon.
3. Put the mouth of the balloon around the mouth of the bottle, and hold it with your fingers.
4. Hold the balloon up to drop the baking soda into the bottle.
5. Once the balloon fills with gas, pinch the neck to take it off the bottle. Try not to let any gas come out!
6. Put the mouth of the balloon down into the bottom of your cup/beaker, and let the gas out.
7. Light your candle.
8. Pour the cup filled with carbon dioxide onto your candle.
 - What happened?
 - Did you break part of the fire triangle in this experiment?



Questions

1. Did the candle keep burning once you poured carbon dioxide over the flame?
2. Do firefighters really use carbon dioxide to put fires out?
3. When wood burns, it makes carbon dioxide, just like when you mix baking soda and vinegar. Can you explain how covering a candle works to put it out?
4. Is carbon dioxide heavier or lighter than oxygen?
5. Do you think our atmosphere has different layers of gasses like how oil, water, and honey all settle into different layers?

[See answers and learn more about how this experiment works by scanning the QR code at the top of the 1st page.](#)

Clean-up

Wash and dry any tools you used, put materials back where you got them from, clean your work station.

SHARE OUR FREE LESSONS!

Want to share our free activities like this one with your friends?

Send them this link to our free lessons:

<https://learnlibre.com/free-lessons/>