



Fizzy Lemonade Activity

In this experiment, the students will get to be chemists! They will learn about acids, bases, and how they react when they come in contact with each other. Similar to the baking soda and vinegar experiment, this fizzy lemonade experiment demonstrates that when an acid and a base mix, we can expect a chemical reaction in the form of fizzing.

*Note: this experiment is edible, so you may offer students tastes as instructed throughout (though they may not like the taste!)

MATERIALS TO BRING/PURCHASE

- Fresh lemons (enough for 2 per group, based on number of students in the class)
- Cold water (can use sink water from classroom/bathroom)
- Baking soda (1 small box)
- Sugar (small box or bag)
- Small knife (to cut the lemons)
- *Suggested but not necessary: plastic tablecloths to cover tables (makes clean-up easier)



MATERIALS INCLUDED

- Plastic spoons
- Drinking glasses (preferably clear, can be plastic)
- Small plastic cups (for dry ingredients)

PROCEDURE

1. Set up each workstation (table where each group of students and mentor are sitting). If using, put the tablecloth down. Make sure all materials are out and ready. Each group needs the following: 2 lemons, 2 glasses/cups (1 filled with water), 1 spoonful of baking soda, 1 spoonful of sugar. [Place baking soda and sugar in 2 separate small plastic cups]
1. Cut the lemons in half and squeeze out all the juice into the empty glass/cup. Explain to the students that the lemons are called an "acid." You may allow students to take a small taste of the fresh lemon juice if desired.
2. Pour an equal amount of water into the cup with the lemon juice.
3. Make sure to have the students' attention for this step. Get the teaspoon of baking soda and explain to the students that it is called a "base." Add the baking soda to the glass of lemon juice and stir. Watch the reaction of the lemon mixture. Ask the students to tell you their observations: what did it look like, what did it sound like? You may allow students to take a small taste of the mixture if desired.
4. Get the teaspoon of sugar. Ask the students if they think anything will happen when you add it to your lemon juice mixture. Add the sugar to the mixture and stir. You may allow students to take a small taste of the mixture if desired.
5. Ask students if they noticed anything happen when you added the sugar. Did it do anything? Did it fizz again? (This is the last step in the experiment)