#### Activity: Fizzy Lemonade Focus: Job/Career Pathways, Social/Emotional Learning Grade Range: K - 2nd Time: 30-45 minutes



#### INSTRUCTIONS

- Share with student that today they will be talking about different kinds of jobs and skills that people have. Explain that many people have different "jobs" and "careers" that they do. Example statement: "I am a dentist, but I also am a cook [I make dinner for my family], artist [I draw with my niece], and basketball player [I play basketball with my friends]" (emphasizing that we might not do all these jobs at one time).
- 2. Explain to students that they are going to listen to the story *My Mama Is A Mechanic* and then complete an activity as a chemist for the day (just like Mama in the story).
- Read the book My Mama Is A Mechanic aloud to students.
  \*Note: if teacher approves, you can move the students to a "group" setting (carpet, reading space).
- 4. At this time, separate students into groups according to how many students/mentors are present (groups of 3-5 would be ideal). Be sure that at least one mentor is stationed with each group, with one mentor available to be a floater/distribute materials.
- 5. Follow the experiment procedure on the Fizzy Lemonade Activity sheet.
- 6. Once you have completed #6 in the procedure the experiment is complete!
- 7. End the lesson by talking to students about the experiment and asking any follow-up questions about the experiment or the book (as time allows):
  - a. How did you feel when the lemon mixture "exploded?"
  - b. Did you like the taste at all?
  - c. Do you cook at home with your family? [You could suggest they call themselves "chemists" at home when they cook!]
  - d. What kind of job do you think you would like to do like Mama in the story? [doctor, mechanic, quarterback, treasure hunter, surgeon, architect]



### SYNOPSIS

Students will learn about a variety of jobs/careers in relation to people in their "everyday lives." Using the example "My mama is a chemist" from the book, mentors will conduct a short experiment with students.

#### MATERIALS

- Book: *My Mama Is A Mechanic*
- Fizzy Lemonade activity sheet
- Fizzy Lemonade ingredients

### TIPS

- Be mindful of student's family structures; they can apply this story to anyone in their family!
- While working with younger students, involve them as much as possible in the actions (letting them pour ingredients in the cup, letting them stir).
- Give students individual spoons to get small tastes (wipe off in-between)



#### 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 cleanup easier)



## **MATERIALS INCLUDED**

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

# PROCEDURE

- 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 and 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)