

4+

Workspace Kitchen Area

Is electricity required?

No

Description

Bring the Hershey's Lab into your home with this fun experiment where you will test baking soda reactions. Fizzy Fun is a fun way to learn about chemical reactions. Adult supervision is recommended especially for children under 7 years old.

Materials

- and pen

Concepts Explored

Chemical Reactions











What to Do

- 1. Watch the instructional video and gather up your supplies.
- 2. Freeze the liquids by pouring each liquid into its own space in an ice tray. For extra fun, add a drop of food coloring into each liquid.
- 3. Once frozen (takes about an hour), remove samples from the tray. Place each sample into a separate container. If you need to reuse the container for each sample, be sure to rinse it out between samples.
- 4. Make some predictions and record in your journal. What do you think will happen? Which samples will fizz when you add baking soda? Which ones won't have a fizzy reaction?
- 5. One at a time, pour $\frac{1}{2}$ tablespoon of baking soda onto each sample. Watch for a reaction. What do you notice?
- 6. Repeat step 5 with the remaining samples.
- 7. Write down your findings in your iournal. Record which substances react / don't react. What surprised you?



Fizzy Fun

Troubleshooting Tips

- If you're short on time, feel free to skip the freezing step. The reaction works just as well using liquids.
- Do not use bleach in this experiment. Mixing bleach with some liquids can create toxic gas.
- Some liquids might have a strong odor. Use caution when smelling the liquids.



How does freezing change the reaction time?

Did your liquids react (or not react) like you expected? What do the liquids that created a fizzing reaction have in common?

What is Happening?

- When you add baking soda to liquids that are acidic, you create a chemical reaction. In this activity, the vinegar is the acid and the baking soda is the base. When this acid and base mix, a gas called carbon dioxide is formed. The fizzing comes from the escaping carbon dioxide. A chemical reaction happened when the molecules of the vinegar and baking soda rearranged into a new substance- carbon dioxide.
- Citrus fruits like lemons and oranges contain citric acid. The citric acid makes them taste sour and fizz when mixed with baking soda.
- Household cleaners such as soap are examples of bases. How did soap react with the baking soda?

Taking it Forward

- In the Hershey's Lab, we use fruity Icebreakers in Fizzy Fun. Try this activity again using crushed up candy you have at your house.
- If you liked this activity you will also like...
 - Sweet Speedway
 - Soap Factory



