

## GOAL:

Explore the different states of water through an experiment.

## MATERIALS:

- water
- baking soda
- vinegar
- food dye
- tray or cookie sheet
- 4 clear cups
- teaspoon
- tablespoon
- towel



## STEPS:



1. Gather materials. Cover your workspace with a towel. Place your tray or cookie sheet on top of the towel.
2. Create a line of cups on the tray.
3. Add 1 teaspoon of baking soda to each cup.
4. Fill each cup halfway with water.
5. Add a few drops of different colors in each cup. Stir with teaspoon to evenly distribute.
6. Add 1 tablespoon of vinegar to each cup.
7. What do you notice? What do you hear?

## DISCUSSION:

What reaction did you see when you added the vinegar to each cup?

Why do you think baking soda and vinegar had this reaction? (Turn the page over to find out the answer.)

What things do you see water mix with in nature?



**QUICK TIP:** If you want to try something cool, try adding two different color drops to one cup and mix for a brand-new color!

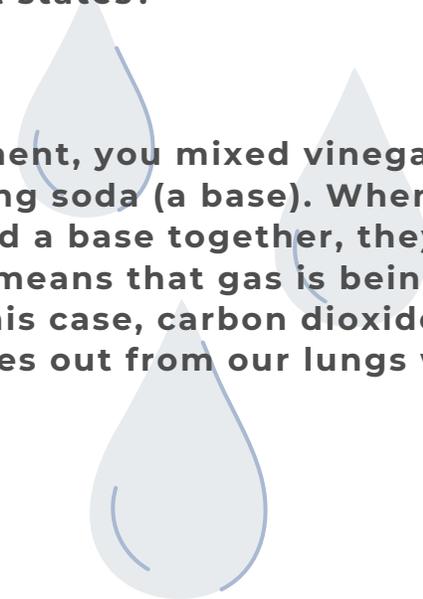
## FUN FACT:

You can find water in 3 different states on Earth: solid (ice/snow), liquid (water/rain), and gas (water vapor/steam). Can you think of ways you've interacted with water in these different states?

## EXPERIMENT FINDINGS:



In this experiment, you mixed vinegar (an acid) and baking soda (a base). When you mix an acid and a base together, they bubble and hiss. This means that gas is being released—in this case, carbon dioxide! This is also what comes out from our lungs when we breathe.



## WHAT CAN WE LEARN FROM WATER?

Water is a necessity for all life on Earth. It is present in the atmosphere and even inside our bodies. We use it every day, in everything we do.

It's important to learn about water so that we can understand how we impact the planet, and how it impacts us. Everything is connected.