

“Ch-ch-ch-changes!”

First person to name the reference correctly gets a ticket! 😊

BACKGROUND:

Changing the state or shape of matter is an example of a **physical change**. Physical changes alter the form of a substance, but not its chemical composition or identity. Crushing a can and tearing paper are examples of physical changes. In a **chemical change**, however, the molecules in a substance combine or break apart to form a new substance. Burning wood and rusting iron are examples of chemical changes. Matter can be described based on its **physical** and **chemical properties**. In this lab, students will describe four substances based on their properties and the changes they undergo.

MATERIALS:	Baking Soda	Vinegar	Baking Powder	Corn Starch
	Goggles	Sugar	Spatula	Stirring Rod
	Disposable Pipets	Water	Transparency	Iodine solution

PROCEDURES:

1	Place baking powder into each square in the row labeled Baking Powder. Do not place any liquids on the first box with Baking Powder. This will be used as a control.
2	Use a clean dropper for each part and make sure you clean your stirring rod each time you use it. Record your observations for every part in Data Table #1 below
3	Add water onto the second square a few drops at a time, observe, and record your observations. Use a stirring rod to stir if necessary.
4	Add vinegar onto the third square a few drops at a time, observe, and record your observations. Use a stirring rod to stir if necessary.
5	Place 5 drops of iodine solution to the fourth square of baking powder. Record the results in the table below. Use a stirring rod to stir if necessary. Caution: Be careful when handling iodine. It will stain your skin and clothes.
6	Repeat steps 3-5 for each of the substances. Clean the spatula (or spoon) for each substance.
7	Fill in Data Table # 2 with physical or chemical change under the Change column, and the property or clue you observed that made it a chemical or physical change under the Property column (reactivity or solubility).

DATA:

Data Table 1: Qualitative Observations

	Unmixed	Mixed with Water	Mixed with Vinegar	Mixed with Iodine
Baking Powder				
Baking Soda				
Cornstarch				
Powdered Sugar				