

Name \_\_\_\_\_ Hour \_\_\_\_\_ Date \_\_\_\_\_

## White Before Your Eyes Lab

### Objective:

You have learned how to describe matter based on its physical and chemical properties. You have also learned some signs that can help you determine whether a change in matter is a physical change or a chemical change. In this lab, you'll use what you have learned to describe four substances based on their properties and the changes that they undergo.

### MATERIALS

- baking powder
- baking soda
- cornstarch
- sugar
- ice cube tray
- craft stick
- vinegar
- water
- eyedroppers (3)
- iodine solution

### Procedure:

1. Using a spoon place a small amount of baking powder in 3 cubes of the ice cube tray. Only use enough to cover the bottom of each cube.
2. Record your observations about the baking powder's appearance, such as color and texture, in the "unmixed" column of the table.
3. Use an eyedropper to add 60 drops of water to the baking powder in cube 1. Stir with a craft stick.
4. Record your observations in the table under the column labeled "mixed with water" Place the craft stick to the side, as you will not use it again.
5. Use a clean dropper to add 20 drops of vinegar to cube 2 and stir with another craft stick.
6. Record your observations in the table under the column labeled "mixed with vinegar" Place the craft stick to the side, as you will not use it again.
7. Use a clean dropper to add 5 drops of iodine to cube 3 and stir with another craft stick
8. Record your observations in the table under the column labeled "mixed with iodine" Place the craft stick to the side, as you will not use it again.

Repeat steps 1-8 for each of the other substances (baking soda, cornstarch, sugar) **\*\*be careful when using iodine – it can stain your skin and clothes\*\***

### Data Observations

Substance	Unmixed	Mixed with Water	Mixed with Vinegar	Mixed with iodine
Baking Powder				
Baking Soda				
Cornstarch				
Sugar				

## Analysis and Conclusion

1. How do you know if a chemical change has occurred? \_\_\_\_\_

\_\_\_\_\_

2. What physical properties do all four substances share? \_\_\_\_\_

\_\_\_\_\_

3. In the table below, write the type of **change** – **physical or chemical** – that you observed for each substance. State the **property** that the change demonstrates – **reactivity or solubility** (the ability to dissolve).

	Mixed with water		Mixed with vinegar		Mixed with iodine	
Substance	Change	Property	Change	Property	Change	Property
Baking powder						
Baking soda						
Cornstarch						
Sugar						