

## SCIENCE 9: Bag of Change

### PREFACE:

In this activity, you will mix 3 unknown substances together in a bag and observe the changes that occur noting chemical change and physical change. Observation skills are crucial for this investigation. Watch for changes in state (solid, liquid, gas), colour (use noun-colour description), volume (mL), temperature, and anything else you can detect. Do not smell any of these substances please.

### MATERIALS: PLEASE NOTE WHMIS LABELS AND ACCORDINGLY SAFETY

- Chemical A (a white solid)
- Chemical B (a white solid)
- Chemical C (a blue liquid)
- 50 mL graduated cylinders
- Plastic bag
- goggles

### PROCEDURES: GOGGLES ARE DONNED & NOT REMOVED UNTIL LAB CONCLUSION!!!!

1. Add one spoonful of Chemical A on the left side of the ziplock bag. Describe and record the properties for Chemical A. Add 1 spoonful of Chemical B on the right side of the ziplock bag. Do not mix the chemicals. Look and describe Chemical C. Record your observations in the spaces provided below. Observations may include the colour or state of each chemical. Add a photograph of each Chemical in second row below.

Chemical A (Sodium bicarbonate)	Chemical B (Calcium chloride)	Chemical C (Bromothymol blue)

2. Mix Chemical A with Chemical B in the ziplock bag. Record observations. Add 10 mL of chemical C into a plastic bag. QUICKLY remove as much air as possible and then seal it up.
3. In the first 30 seconds, squeeze the bag in various places to mix the chemicals.
4. Detect any temperature changes with your hand.
5. Record as many observations as you can. After 2 minutes record any new observations.
6. Add at least two photographs of your ziplock bag.

Observations:

PHOTGRAPHS

7. When you are finished, wash all the chemicals down the drain and rinse out the plastic bag.
8. What evidence of chemical change did you observe in the bag? What physical changes did you see?  
**Answer in complete sentences.**

**POST THIS LAB ON YOUR EDUBLOG  
BE SURE TO INCLUDE YOUR VIDEO!!**