Chemistry in a Zip-Lock Bag
Conservation of Mass

Name: _____Date: _____

Problem: What does it mean for mass to be conserved?

Discussion:
Earlier this year, we completed this lab to observe the physical and chemical changes that occurred during the reaction.

Now, we will demonstrate the law of conservation of mass. The law of conservation of mass states that, in a closed system, the total mass of a reaction will be the same before and after the reaction occurs.

During this lab, you will design a procedure for proving the law of conservation of mass.

Materials:
Baking Soda
Calcium Chloride
Phenol Red Solution
Film Canister
Ziploc Bag

Procedure:

Create the procedures for a lab to prove the conservation of mass. The following information will be helpful in your procedure.

Use approximately one spoonful of baking soda to the Zip-Lock bag. Add about two spoonfulls of calcium chloride to the same Zip-Lock bags.

Use about 10 mL of the phenol red. Place the phenol red in the film canister to keep it from immediately reacting with the dry reactants.

The reaction will produce a gas which can be contained within the Zip-Lock bag.

Summing Up:

1. Write a conclusion paragraph explaining how your procedure proved the law of conservation of mass (matter). Does your data support this conclusion?