Hydrolysis In the Baggie….

Purpose: to explain hydrolysis of salts that are slightly acidic and basic and neutralization.

Procedure:

1. In one corner of a dry baggie place 1 spoonful of baking soda.

2. In the other corner place 1 spoonful of calcium chloride (**CAUTION:** Calcium chloride irritates skin and eyes. **Wear goggles and rinse off fingers immediately**)

3. Fill a small vial with tap water and a drop of indicator (phenolpthalein works well.)

4. Seal the baggie.

5. Tip the vial and mix the contents by squeezing the baggie with your fingers. **Observe temperature and color changes.**

6. What do you think happened? Write down what you observe and what you think happened for this trial.

7. Rinse the baggie and shake water droplets off of it. Rinse the vial. Go back to step 1 and repeat this three times.

8. Rinse the baggie and vial very well and shake off any water droplets. Set it inside out on the center table to dry.

Observations/Inferences: What you saw, what you think happened. Record your ideas here.

Trial #1

Trial #2

Trial #3

Lab Report:
Write a summary of your observations / inferences AND answer these questions on the back of your lab report form:

1. What turned the indicator pink?

2. Which chemical is a base?

3. What gas was produced to cause the phizzing?

4. What chemical acted like an acid (Hint: it neutralized the base)

5. What happened that produced heat in the baggie?

6. What happened that removed heat (made it cold) in the baggie?

7. Write the chemical equation for the following the reaction. Use the words:

Calcium chloride plus
sodium bicarbonate (bicarbonate is HCO_3^{1-})
produces sodium chloride plus
calcium hydroxide plus
carbon dioxide (CO_2)

8. BONUS: Correctly balance the chemical equation!