Use your Experimental Data and what you learned in this lab to answer the following questions.

1. Sodium hydrogen carbonate is baking soda (NaHCO₃). When HCl is added to NaHCO₃, carbon dioxide. What is the chemical formula for carbon dioxide?
   a. What consumer products is carbon dioxide commonly found in?

2. From your observations, which of the other chemical reactions gave similar results?
   a. What gas do you think was formed from the chemical reaction listed in question 2?

3. The body uses hydrochloric acid (HCl) to help digest food. What color does the blue food dye turn when HCl is added?

4. Sodium hypochlorite (NaOCl) is a common ingredient in household bleaches and cleaners. What happens to the color of the blue dye when both HCl and NaOCl are added?

5. Potassium iodide (KI) is the source of iodine in iodized salt. What color is the KI and NaOCl mixture?
   a. What color does starch change to in the presence of KI and NaOCl?

6. A precipitate is a solid that separates upon mixing solutions and is an indication of a chemical change. Which reaction(s) produced a very bright yellow precipitate?

7. What other mixings produced precipitates? Describe their colors and textures using words like milky, cloudy, grainy.

8. What mixture produced a precipitate that was very slow to form?
   a. What could you have done to speed up the chemical reaction?

9. Observe the scrap of paper you used to absorb the AgNO₃ + NH₃ mixture. What evidence do you see that indicates that silver compounds are light-sensitive?

10. Review your results and list as many different kinds of observation that can be used to indicate that a chemical reaction is occurring.