5. You have just observed a chemical reaction. Look in your notebook and textbook for 5 clues that a chemical change has occurred

(a)
(b)
(c)
(d)
(e)

Which of the clues above did you observe during this exploration?

Conclusions: Complete the following on page 86.

6. Make a sketch of a line graph of your data for temperature and time.

Put time on the x-axis, and temperature on the y-axis.

Do not forget to label your axes, and give your graph a title.

Label your graph of the reaction as **endothermic** or **exothermic**.

7. Write a paragraph summary of the results and discussion for this lab. Be sure to include:

a) topic sentence
b) summarize the results you recorded above- describe what happened
c) summarize the questions you answered above
d) conclusion sentence

Page 87 Aluminum Reaction

P/87: Lab Assignment: Effect of Aluminum on Copper Chloride

In this lab, you will observe a chemical reaction between three substances: copper chloride, water, and aluminum. The copper chloride solution is a solution.

Safety Tips:

- Copper chloride is poisonous!!!!!
- Make sure you do not touch the copper chloride with your bare hands.
- Wash your hands after the experiment.
- If you spill the copper chloride, make sure to clean it up thoroughly using a paper towel.
- DO NOT pour the copper chloride solution down the drain

A. **Method:**

1. Add drops of copper chloride solution to a test tube up to the 5 mL mark.
2. Measure out a small square of aluminum foil to be the size shown.
3. Lightly crumple the aluminum foil and place it in the tube. Push it under the surface of the liquid with your stirring stick.

B. Record all of your observations of the reactions that take place throughout the experiment. Make sure you make observations before, during, and after adding the aluminum to the copper chloride.

Before Reaction	During Reaction	After Reaction

Temperature before reaction	Temp. during reaction	Temp. after reaction

Answer the following questions about the lab on page 87 and 86.

1. Name the three substances you started out with, including what colors they were.
2. When you added the aluminum, did the color of the liquid change? Why do you think this happened?
3. What happened to the aluminum? Is there still aluminum in the liquid?
4. A new substance formed in the liquid. Describe its appearance. What color is it? Where did it come from?