Lesson 84: Lab Sheet 1

I. Fill in the data table below as you watch the lab on the video.

mass of sodium bicarbonate	
mass before reaction	
mass after reaction	

II. Write a balanced equation for the reaction that took place. (Hint: the narrator on the video will help you with this.)

III. Conclusion Questions: answer each question completely. Show all work!

- Calculate the mass of carbon dioxide produced in the experiment. (Hint: think about what bubbled away.)

- Use molar masses to calculate the percent of carbon in carbon dioxide using the following formula.

$$\% \text{ C in } CO_2 = \frac{\text{mass of C}}{\text{mass of } CO_2} \times 100\%$$

- Calculate the mass of carbon in the sample of carbon dioxide using the same formula and your answers to the previous two calculations.

- Use molar masses to calculate the percent of carbon in carbon dioxide using the following formula.

$$\% \text{ C in } NaHCO_3 = \frac{\text{mass of C}}{\text{mass of } NaHCO_3} \times 100\%$$

IV. Practice Problems. Show all work!

- Calculate the percentage sodium in sodium oxide.

- Calculate the percentage aluminum in aluminum phosphate.

- Calculate the percentage hydrogen in hydrogen peroxide.

- Calculate the percentage nitrogen in dinitrogen pentoxide.