

Baking Soda Stoichiometry LAB

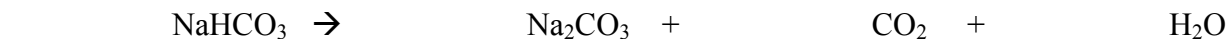
Name: _____

LAB STATION: _____

Chemistry – Block _____

Date: _____

1. Balance this equation:



Mass of clean and dry crucible and lid:

_____ grams

BEFORE HEATING: Mass of crucible and lid and baking soda:

_____ grams

Mass of just the baking soda (sodium bicarbonate) *alone*:

_____ grams

THEORETICAL YIELD: Using your balanced equation from above, now calculate the # of grams Na_2CO_3 you *SHOULD* get in this experiment. Show complete stoichiometry setup below. Write your answer into the blank space provided to one decimal place.

_____ grams
THEORETICAL YIELD

AFTER HEATING: Mass of crucible and lid and sodium carbonate:

_____ grams

Mass of just the sodium carbonate *alone* (SHOW MATH SETUP HERE with units!)_____ grams
ACTUAL YIELD

PERCENT ERROR: Now, calculate your percent error. Remember that:

$$\text{Error} = \frac{|\text{actual yield} - \text{theoretical yield}|}{\text{theoretical yield}} \times 100\%$$

Show your math setup for percent error here (INCLUDE UNITS!):

_____ % **ERROR**2. If your error was more than 5%, what would you do *differently* next time in the lab to *reduce your error*? Be as specific as you can.