

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Seat#: \_\_\_\_\_

**Background:**

Chalk is a compound called calcium carbonate. You are going to determine how many molecules of chalk it takes to write your first name outside on the sidewalk.

**YOU MUST SHOW ALL YOUR WORK ON THIS WORK SHEET! DIMENSIONAL ANALYSIS! UNITS!**

<b>1</b>	Write a pathway for converting from grams all the way to molecules. Label each arrow of your pathway with which conversion factor you will have to use.			
<b>2</b>	Write the neutral formula for Calcium Carbonate. Show the crossing over arrows to justify how you got your formula.	Calculate the molar mass of chalk, calcium carbonate.		
<b>3</b>	Create a data table for the data you will need to collect. *hint* - think "before and after"			
<b>4</b>	Calculate the number of molecules of chalk you used to write your name using dimensional analysis.			
<b>5</b>	Calculate how many PROTONS are in the chalk drawing of your name. ( <i>Hint – Convert all the way starting from grams of chalk used to protons. Think about how many protons one molecule of calcium carbonate has. You should have three conversion factors in your set up if you do it correctly!</i> )			