

How Many Particles of Chalk?

Background: Chalk is a compound called calcium carbonate. You are going to determine how many particles of chalk you use when you write your names on the sidewalk. ***You MUST show ALL your work!***

1	Write a pathway for converting from grams all the way to particles. Label each arrow of your pathway with which conversion factor you will have to use.	
2	Calculate the molar mass of chalk – CaCO_3	
3	What data will you need in order to calculate the amount of calcium carbonate used when you write your name? Think about what you will need to MEASURE.	
4	Use this space to collect your data. Make sure draw a data table and include titles for each column, units for your data, etc.	
5	Calculate the number of moles of calcium carbonate in your name.	
6	Using your answer to #5, calculate the number of particles of calcium carbonate in your name.	
7	Redo #5 and #6 by combining them into ONE dimensional analysis problem where you convert from grams to particles in one line setup.	
8	Using your answer to #7, the formula for calcium carbonate CaCO_3 , and the periodic table, calculate how many PROTONS are in the chalk drawing of your name.	