

# Chalk Talk

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

**Objective:** Use the mole concept to determine how many formula units of chalk it takes to write your name.

**Materials:** Construction paper or sidewalk, metric balance, chalk

**Pre-lab questions:** Use your notes & section 10.3 in your chemistry book to help you answer the following questions.

1. Define molar mass.
2. Explain how the molar mass of a **compound** is calculated.
3. What is the chemical formula for calcium carbonate? \_\_\_\_\_
4. What is the molar mass of calcium carbonate? Show your work.

Teacher Initials: \_\_\_\_\_

**Procedure:** Chalk is calcium carbonate, an ionic substance. When you write your name with chalk you leave behind billions and billions of calcium carbonate formula units. In this activity, your job is to determine how many formula units it actually takes to write your name.

1. Record the name of each group member on the data table.
2. Determine the mass of your piece of chalk. Record the information for your chalk & that of your partner(s) in your data table.
3. Write your name on the sidewalk or construction paper. You may write your name as small or as large as you like and may write your first name, last name, or both. If you have a short name, write big!
4. Weigh your piece of chalk again. Record the mass for your chalk & that of your partner(s) in your data table.

**Data:**

Name			
Initial Mass			
Final Mass			

**Summing Up:** Show all of your work for any calculations and label all numbers!

1. Find the mass of chalk used to write each group members name.
2. Calculate the formula units of chalk used to write the name of each group member.
3. What information would you need to know to calculate the moles of graphite it takes to write your name?

Teacher Initials: \_\_\_\_\_