

Factors Affecting the

RATE OF REACTION

In this experiment you will be determining the effect of **SURFACE AREA** (Particle Size) on the rate of reaction. It is very important that you **MEASURE EXACT AMOUNTS OF SUBSTANCES**.

MATERIALS:

GOGGLE (over your eyes)

(2) Large Test Tubes

(2) 50 mL beakers (Clean)

Small Graduated Cylinder

Calcium Carbonate Pieces

Calcium Carbonate Powder

Test Tube Rack



1. Measure **about 4 pieces** of **CALCIUM CARBONATE CHIPS**. Place in 50 mL beaker.
2. Measure **1 level scoop** of **CALCIUM CARBONATE POWDER**. Place in 50 mL beaker.
3. Measure **5 ml** of **1M HCl** (hydrochloric acid) in each of two test tubes.
4. Add the acid to each beaker.
5. Pay close attention to the speed of the reaction. (time, intensity and time to completion). Use a lab timer if you like.

Factors

Temperature

Concentration

Surface Area

Catalyst

RECORD YOUR DATA ON THE DATA CHART PROVIDED!!!!

What is the relationship between the RATE OF REACTION AND THE SURFACE AREA OF THE CHEMICALS?

CLEAN UP!

CALCIUM CARBONATE PIECES GO IN ASSIGNED CONTAINER

RINSE EVERY THING ELSE DOWN THE DRAIN WITH WATER

CLEAN EQUIPMENT AND RETURN TO PROPER AREA