

Factors Affecting the

RATE OF REACTION

In this experiment you will be determining the effect of the **CATALYST** on the rate of reaction. It is very important that you **MEASURE EXACT AMOUNTS OF SUBSTANCES**.

MATERIALS:

GOGGLE (over your eyes)

(4) Large Test Tubes (Clean)

(4) 50 mL beakers

**Solid – Calcium Chloride,
Potassium Nitrate,
Sodium Chloride,
Manganese Dioxide**

Liquid - Hydrogen Peroxide

Test Tube Rack



Factors

Temperature

Concentration

Surface Area

Catalyst

1. Measure **1 level scoop** of each solid and add each to a separate **CLEAN 50 mL beaker**.
2. **ADD 5 mL OF THE HYDROGEN PEROXIDE TO EACH OF 4 TEST TUBES.**
CAUTION: THE NEXT STEP MAY BUBBLE VIOLENTLY and RELEASE HEAT!
3. Add the 5 mL of Hydrogen Peroxide to each beaker.
4. Observe the reactions for at least 5 minutes. (NOTE, all solids are **CATALYSTS**, it is your task to decide which is the best, 2nd, 3rd, etc.)

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

What is the relationship between the RATE OF REACTION AND THE CATALYST ADDED TO CHEMICALS?

CLEAN UP!

PUT WASTE IN ASSIGNED CONTAINER

CLEAN EQUIPMENT AND RETURN TO PROPER AREA