

Factors Affecting the

RATE OF REACTION



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

Factors

Temperature

Concentration

Surface Area

Catalyst

MATERIALS:

GOGGLE (over your eyes)

3 - 250ml Glass Beakers (Clean)

Sodium Bicarbonate (one scoop)

Hot, Cold and Room Temp Citric Acid

NOTE: use hot plate to gently heat the acid.
Get cold acid from container in cooler.

Timer (myscience8.com)

TEMPERATURE PROBE



1. Put 10 ml of Citric Acid in each of 3 Beakers. Heat one of them gently on a hot plate, leave the second at room temperature, and get the third from the cooler (cold).
2. **RECORD THE TEMP OF EACH BEAKER**
(Use a temperature probe)
3. Add **1 level scoop** of sodium bicarbonate (NaHCO_3) to each beaker.
4. TIME how long it takes for the reaction to go to completion. You can do this one at a time or at the same time. (Accuracy?) Use a lab timer.

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

What is the relationship between the RATE OF REACTION AND THE TEMPERATURE

CLEAN UP!

RINSE EVERY THING ELSE DOWN THE DRAIN WITH WATER

CLEAN EQUIPMENT AND RETURN TO PROPER AREA