

CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

Name(s)

Berenice Vega

Project Number

J0634

Project Title

Reaction Rates: Does Temperature Affect the Iodine Clock Reaction?

Abstract

Objectives/Goals

The goal was to find out if temperature affected the rate of the iodine clock reaction.

Methods/Materials

Stopwatch, distilled water, Vitamin C tablets, 2% Iodine tincture, hydrogen peroxide, liquid laundry starch, disposable cups, thermometer, gas stove, an refrigerator. I made two solutions and poured them at the same time while timing the reaction. Three different batches were made one hot, one cold, and one room temperature.

Results

After many trials to ensure accuracy, it was evident that temperature played a key role in reaction rates. The solutions made with cold water were the slowest to react, while the solutions made with hot water were the fastest to react.

Conclusions/Discussion

After determining the results of the experiment, it is evident that temperature plays a key role in reaction rates. This supports the idea that you can alter the amount of time it will take for a chemical reaction to react by varying the temperature.

Summary Statement

Based on the results, temperature plays a key role in altering the reaction time of the Iodine Clock reaction.

Help Received

I performed the Iodine Clock reaction myself, however, I received aid in understanding what happens in the reaction from the website Science Bob.