

Lauren Wilson
Junior Division Chemistry
Blaze vs. Baking Soda

The purpose of this investigation is to discover if adding varying concentrations of NaHCO_3 to paint increases the paint's ability to withstand fire. I hypothesized that if the concentration of NaHCO_3 in the paint is increased, then the ability to withstand fire will increase. The experiment involved three major steps. First, I made my paint samples and let them dry. Next, I burned the samples over the flame. Finally, I recorded my observations and data in a table. The data collected did support the original hypothesis. The paint with no NaHCO_3 added to it ignited in an average of 1.7 seconds, whereas the paint with 1 gram of NaHCO_3 in it ignited in an average of 4.2 seconds. This was 2.5 times longer to ignite than the control sample. These findings lead me to conclude that NaHCO_3 does influence the flame resistance of paint.