



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Mikayla E. Bratcher	Project Number J0605
Project Title Corrosion Prevention	
Objectives/Goals The purpose of my project was to test the most effective method of slowing down the corrosion of metal.	
Abstract Methods/Materials I prepared steel washers four different ways. The first washer was my control and was unaltered prior to testing. The second washer was protected with cathodic protection. The third washer was coated with rust proof paint, and I electroplated the fourth washer with copper. Once prepared, each washer was soaked in identical mixtures of bleach and water for a period of 24 hours. I weighed the washers before and after testing to determine how much weight was lost during the corrosion process.	
Results The steel washer coated with rust proof paint consistently had the least amount of corrosion.	
Conclusions/Discussion My conclusion is that the rust proof paint has the least amount of corrosion because the paint sealed the pores in the metal so that the solution and oxygen could not start the corrosion process. The control washer had the most corrosion because it was left unprotected.	
Summary Statement My project is about the most effective way to slow down the corrosion of metal.	
Help Received My mother helped with the purchasing of supplies and stripping of copper wire. She also supervised my use of bleach and electricity. My science teacher helped critique my presentation.	