Abstract

Project Title: Lead Toxicity in Water
Project ID: 287

Abstract
A brief explanation of your project. Enables judges to receive a base understanding of your project and work.

Items to Include:

Lead concentrations in drinking water have been a life-threatening crisis in the community. Lead poisoning is certainly an undesirable thing to occur, however, this issue can be prevented by taking precautions. The two most common types of piping systems used are copper pipes and galvanized steel pipes. This experiment tested the lead concentration, in *parts per billion* (*ppb*), present in six 100-mL samples of tap water from copper and galvanized steel pipes with the use of lead-detecting reactant strips. Additionally to the lead concentration, the variable of temperature was also factored into this experiment to understand the relationship between temperature and the lead concentration outcomes. The samples for the copper pipes were labeled 1A, 2A, and 3A, and the samples for the galvanized steel pipes were labeled 1B, 2B, and 3B. Samples 1A and 1B were set at room temperature, or 20 degrees Celsius. Samples 2A and 2B were set at 10 degrees Celsius, and Samples 3A and 3B were set at 30 degrees Celsius. Then, a lead-detecting reactant strip was submerged under each water sample for 3-4 seconds,

- **Introduction:** Why did you do this project and why is it important? How will this effect people and why is it needed. Inspire the reader to continue learning more about your research and read your report.
- **Problem Statement and Engineering Goal / Hypothesis:** What is the problem you were solving and what was your engineering goal or hypothesis.
- **Procedures:** How did you solve the problem and or test your hypothesis. Don't go into details, provide a broad, conceptual view of what you did. For engineering, what was your design criteria.
- **Results:** What was the outcome? Use your data and numbers to describe your result.
- **Conclusion:** Was your hypothesis supported or the engineering goal met?