Abstract

Project Title: Are Your Hands Really Clean: Flu Season Is Here
Project ID: 206

Abstract

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

Introduction: I am very interested in being healthy; when I am sick, I miss out on important things and get behind on my school work. Doctors tell us we are more likely to get the Flu during the cold weather months. We are also told that frequent handwashing is a good way to avoid the flu. However, during the cold weather months, I sometimes get dry skin and use moisturizer to keep my skin from cracking and breaking. I was curious as to what effect the moisturizer would on my handwashing. I thought that the moisturizer might prevent the water from coating my skin and cleaning my hands.

Problem Statement: I would like to learn if having moisturizers or creams on my hands make it harder to get my hands clean.

Procedures: I used a chamois (sheep skin) to represent skin. I applied moisturizer, sunblock, bug repellent, and hand sanitizer to the chamois in different places. Then I put a drop of water on each spot and took a picture of the drop to measure how much the drop spread out.

Results: All surface treatments had bigger droplet sizes than the water alone (Figure 2). The water alone bubbled up against the sheepskin. Of the test surface treatments, the Bug spray created the biggest droplet, while the sunscreens had the smallest droplets.

Conclusions: The water spread out better with the moisturizer. I think this means it help me clean my hands.

Items to Include:

- **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?