

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

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Project Number

J1802

Project Title

Germs and Bacteria

Abstract

Objectives/Goals

Our project is about germs and bacteria. We were trying to see what brand of soap cleans hands the best. The soaps we used were Method, Soft Soap, Germ-X hand sanitizer and Dove. Our hypothesis was that Dove cleaned hands the best because it sells lots of different types of soaps.

Methods/Materials

- 1. We went to random.org to help randomly choose four people out of a hundred kids at our school.
- 2. We tested each soap 4x's for four days.
- 3. We tested this by taking the four random kids and giving them each two agar plates. One plate they touched before they wash their hands and the other plate they touched after they washed their hands. Each kid was assigned a soap or hand sanitizer. We labeled our plates B (before), A (after), the time, the date, and with an assigned subject number
- 4. We tried to make each hand washing the same. They did the following: put there hands under running water for ten seconds, given one squirt of their assigned soap, scrubbed their hands for fifteen seconds, rinsed their hands under running water again for thirteen seconds, and dried their hands with a paper towel for fifteen seconds. (We had some people help us do the timing and make sure our subjects did not touch anything before they touched their second agar plate.)
- 5. When our testers touched their agar plate they only used four fingers (no thumb). We put all our agar plates in an incubator.
- 6. We were able to measure the amount of bacteria on the agar plates by attaching a transparent graph to our pictures of our agar plates. We used a marker to place dots on the areas of growth covered by the graph.
- 7. We counted the dots and subtracted the after from the before. We then recorded the results on a table. We then calculated the averages.

Results

Our results disappointed us because we were wrong with our hypothesis. Actually Dove did the worst at cleaning the germs off hands.

Conclusions/Discussion

We thought the opposite of reality. Method surprisingly did better than the rest of the soaps. Soft Soap was in second place and Germ-X was in third.

Summary Statement

We were trying to see what brand of soap cleans the most germs off your hands.

Help Received

Mr. Spedding help with supplies, editing, photography and ideas; Community Hospital of the Monterey Pennisula with supplies; Mary Welsh guided us with compiling data