CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY

Name(s)
Jalen P. Vuong

Project Number
J2015

Project Title
The Germinator

Abstract

Objectives/Goals
For my science fair project I tested three household objects (TV remote, house phone and game controller) first with hand sanitizer and a week later with antibacterial soap to see which one would kill the most germs/bacteria.

Methods/Materials
Nine petri dishes filled half way with agar, labels, culture swabs, antibacterial soap (EO Products), hand sanitizer (EO Products), tap water, scotch tape, metric ruler, plastic gloves, cardboard box.

Results
My results showed that during a two week observation for each cleansing method (antibacterial soap and hand sanitizer) the germs and bacteria were eliminated the most with the hand sanitizer. The antibacterial soap had six times more bacteria colonies than the hand sanitizer.

Conclusions/Discussion
My conclusion proved my hypothesis to be incorrect. The antibacterial soap did not kill the most bacteria. Due to the fact, that I was testing the cleansing of objects instead of hands, my experiment showed less germs/bacteria growth with hand sanitizer than the antibacterial soap and water. I believe this was the case because the hand sanitizer stated it contained sugar cane alcohol, making it 99.9% effective against common germs and bacteria. The antibacterial soap was only rubbed three times in a back and forth motion and not the recommend twenty seconds in warm water needed to eliminated most of the germs and bacteria.

Summary Statement
I conducted tests that showed hand sanitizers are more effective in killing germs and bacteria than antibacterial soap.

Help Received
None. I organized, designed, and performed the experiments myself.