



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Leona Abrahamian	Project Number J1601
Project Title Hand Washing vs. Sanitizer	
Abstract Objectives/Goals That hand sanitizer is much more effective in reducing the amount of micro-organisms on hands than washing hands. Methods/Materials Materials <ol style="list-style-type: none">1. Warm running tap water2. Dial hospital grade soaps3. Surgical sterile towels4. Sheep blood agar plates5. Hospital microbiology incubator6. Purell aloe formula hand sanitizer Method/Procedure First, 10 individuals washed their hands with warm water and dial hospital grade soap for 20 seconds. Each of them dried their hands with sterile towels. I swabbed each individual's hands with culture swabs. After I applied the culture swabs to the blood agar plates. Second, 10 individuals sanitized their hands with hospital grade Purell aloe formula hand sanitizer for 20 seconds and dried their hands with sterile towels. I swabbed each individual's hands and applied it on to the blood agar plates. Third, I swabbed 10 individual's hands that did not wash their hands or sanitizer for comparison. Fourth, I took the blood agar plates to the lab and placed them in an incubator. It stayed in the incubator for 72 hours. Results Hand Sanitizer is more effective than hand washing. Conclusions/Discussion Post my experiment, my hypothesis was proven incorrect. The results indicate that sanitizer is much more effective in reducing micro-organisms count than hand washing.	
Summary Statement That hand sanitizer is much more effective in reducing the amount of micro-organisms on hands than washing hands.	
Help Received Father and science teacher	