



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Leona Abrahamian	Project Number 31828
Project Title Hand Washing vs. Sanitizer	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals That hand sanitizer is much more effective in reducing the amount of micro-organisms on hands than washing hands.</p> <p>Methods/Materials</p> <p>Materials</p> <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 <p>Method/Procedure</p> <p>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.</p> <p>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.</p> <p>Third, I swabbed 10 individual's hands that did not wash their hands or sanitizer for comparison.</p> <p>Fourth, I took the blood agar plates to the lab and placed them in an incubator. It stayed in the incubator for 72 hours.</p> <p>Results Hand Sanitizer is more affective than hand washing.</p> <p>Conclusions/Discussion Post my experiment, my hypothesis was proven incorrect. The results indicate that sanitizer is much more affective in reducing micro-organisms count than hand washing.</p>	
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	