



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jessica W. Kwa</b>	<b>Project Number</b> <b>J1315</b>
<b>Project Title</b> <b>Effectiveness of Antibacterial Hand Soaps on E. coli</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective is to see which antibacterial hand soap has the most effect on E. coli bacteria. <b>Methods/Materials</b> I tested six different kinds of antibacterial hand soaps. I mixed in an antibacterial hand soap with E. coli solution, which was E. coli and distilled water. I streaked the substance on tryptic soy agar with an inoculating loop. I made 4 trials of each and my control group was just the E. coli solution, without the hand soap. I also had a purity plate to make sure that there was no other bacteria in the agar to affect the outcome. After 48 hours of incubation, I checked the dishes and counted the colonies. <b>Results</b> Most antibacterial hand soaps killed a very small amount of E. coli. Different hand soaps produce different results. The Target brand compared to Dial had the best results, having the least amount of E. coli bacteria colonies surviving, which was 39 colonies. The worst was the Dial Antibacterial Hand Soap County Orchard Enriched with Aloe, having 310 colonies, which was more than the control. <b>Conclusions/Discussion</b> All the antibacterial hand soaps I tested were unable to kill the E. coli bacteria completely. The prices did not affect the quality of the antibacterial hand soaps. In fact, the cheapest priced hand soap had the best effect in my experiment.	
<b>Summary Statement</b> Which antibacterial hand soap has the most effect on E. coli bacteria?	
<b>Help Received</b> Father helped set up incubator.	