



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jacob Bright; Brian Hanover</b>	<b>Project Number</b> <b>J2004</b>
<b>Project Title</b> <b>Does Your Dish Soap Kill Bacteria?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of our experiment was to determine which dish soap would be the most effective against bacteria.</p> <p><b>Methods/Materials</b> Materials: 20 Petrie dishes with agar; Sterile cotton swabs; Raw chicken; Dawn dish soap; Dawn antibacterial dish soap; Palmolive dish soap; Palmolive antibacterial dish soap; 4 dinner plates; Water; Sink; 4 large bowls; Sharpie pens; Tape.</p> <p>Method: The first step was to rub raw chicken on four different dinner plates. We then dipped each plate into its own soapy water. Each container of water had two tablespoons of its own dish soap mixed into twenty-four cups of water. Samples were obtained from each dinner plate with sterile cotton swabs, and then the agar dishes were inoculated with each swab. The petri dishes were observed daily for four days. After four days, our observations were recorded.</p> <p><b>Results</b> The Palmolive antibacterial dish soap was the most successful in killing bacteria on the plates after washing and letting the plate air dry in comparison to it competitors.</p> <p><b>Conclusions/Discussion</b> Our conclusions show that our hypothesis was incorrect because we predicted that Dawn Antibacterial dish soap would be more effective because it had more cleaning agents (3 cleaning agents). Our experiment demonstrated that Palmolive Antibacterial soap with only 2 cleaning agents was the most effective in fighting bacteria among those tested. Even though it wasn't officially part of our experiment, we found that letting the dishes dry made the bacteria decrease a lot.</p>	
<b>Summary Statement</b> To determine which dish soap actually kills the most bacteria on your hand-washed dinner dishes.	
<b>Help Received</b> Parent helped with the actual method/experiment, typing report, and making charts.	