



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Kayla L. Bozer	Project Number J1704
Project Title Don't Put That in Your Mouth!	
Abstract Objectives/Goals Does the method of storage affect the amount of bacteria that will grow on your retainer during a twelve hour period. Methods/Materials Retainer, Incubator, Petri Dishes, Blood Agars, Clear Tape, Black Sharpie, Q-tips, Latex Gloves, Stop Watch, Safety Goggles, Open container, Retainer Case, Distilled Water, Baking Soda, Listerine. 1. obtain materials listed above 2. Place retainer in mouth before falling asleep and record time 3. remove retainer from mouth exactly twelve hours later 4. Swab one square centimeter of the retainer as a control and streak a petri dish 5. Place the retainer in an open container and record time 6. remove retainer from the container twelve hours later, and swab a seperate one square centimeter 7. Inoculate the petri dish with a Q-tip 8. Place the petri dish in an incubator for twenty four hours, remove and analysis 9. Repeat steps 2-8 four more times for an open container 10. Repeat steps 2-9 for the other environments (closed container, distilled water, water with baking soda, and Listerine). Results My results gave me the knowledge that Listerine is the most affective way to kill bacteria. Listerine virtually eliminated all bacteria on the retainer, while with water, baking soda in water, a closed or open container bacteria would only slightly deminish if not grow. Conclusions/Discussion I was able to come to the conclusion that Listerine is the most affective way to store a retainer. I was able to accept my hypothesis and I was able to obtain all of my objectives. The information I gained from my experement is vital information for the everyday life of a teenager.	
Summary Statement To deterine the most affective way to store a retainer.	
Help Received My brother help with data table and graphs, Hemet Hospital for donating petri dishes, Hemet High School Science teachers; Mr. Kirkham, Mr. Skinner, and Mr. Brigham for helping me figure out how to test the bacteria. M. Truong the incubator. Toni Hunter for teaching me how to count bacterial colonies.	