



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> Christine Goetsch; Caroline Logan	<b>Project Number</b> <b>J1309</b>
<b>Project Title</b> <b>How Much Bacteria Is on Your Retainer?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The goal of our science project was to see if time and brushing effected the amount of bacteria growth on retainers.</p> <p><b>Methods/Materials</b> First we gathered ten test subjects that were willing to be a part of our experiment. Then, we gave them directions as to what to do. Following that, we took samples of the bacteria colonies from each of their retainers. Thus, with the help of the Sansum laboratory and Dr. Jane we were able to incubate the bacteria colonies.</p> <p><b>Results</b> After spending many hours in the laboratory counting bacteria samples, we came to realize, the longer the retainer is in ones mouth without being brushed, the more bacteria is present. We found this by incubating the bacteria and then counting each colony that appeared on the petri dishes. We noticed that the students who wore their retainers for 4 hours had less bacteria than the people who wore their retainers for 16 hours. Furthermore, the people that did not brush their teeth had more bacteria then the people who did brush their teeth.</p> <p><b>Conclusions/Discussion</b> We came to the conclusion that time and brushing do effect the amount of bacteria growth on retainers. The longer the retainer is in ones mouth without being brushed the more bacteria will be produced. This is because bacteria feeds of plaque and one develops plaque when they do not brush their teeth.</p>	
<b>Summary Statement</b> It was about the effects that time and brushing had on the amount of bactiera present on ones retainer.	
<b>Help Received</b> We used the Sansom Laboratory with the help of Dr. Jane	