



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Michael L. Legge	Project Number 31920
Project Title Mysterious Bacteria vs. Evil Tobacco	
Objectives/Goals Research says that smoking educes blood flow and nutrients to your gums. Many believe that smokless tobacco is a safer alternative to cigarettes. It is not, cigarettes trigger the accumulation of bacteria in plaque. Sugar is added to smokeless tobacco which reacts to the bacteria in the mouth. All these factors lead to cancer, gum disease, loss of taste, etc. The reason for my project is to gain a greater understanding of the affect of tobacco products in the mouth. Abstract Methods/Materials I ordered a bacteria kit from Steve Spangler Science and used the agar to grow my bacteria. Agar provides nutrients for the bacteria to grow. Once I collected the bacteria and sealed the dishes the project was fairly easy. I just had to check and document my findings. Results During my project the results showed that the smoker before brushing had the most bacteria growth. The smoker after brushing had the second most bacteria. The smokeless before brushing came in third for bacteria growth follwed by the smokeless after brushing. The least amoutn of bacteria was the non tobacco after brushing. Conclusions/Discussion Upon completion my hypothesis was right on both ends; however, if I had additional equipment to use I would determine what is good bacteria and what is bad. I would also like to take microscopic pictures if I could to display my findings.	
Summary Statement The effects of tobacco on bacteria in the mouth.	
Help Received My mother helped type the report and take pictures. My dad and grandma supplied the mouths to collect bacteria from.	