



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Rhiannon Palmieri	Project Number J0513
Project Title Quantifying Tooth Decay	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective was to find out what in coke contributes to tooth decay the sugar or the acid.</p> <p>Methods/Materials Materials: Coca Cola, vinegar, water, 65 grams of sugar, measuring cup, scale, baby teeth, zip lock bags, 12 jars, hair dryer and spoon or tweezers</p> <p>Method: Teeth were placed in jars containing either Water, sugar solution, acidic solution (with water and vinegar) or coke. Three jars of each solution for a total of 12 jars and 12 teeth. Teeth were removed, rinsed, dried and weighed every week.</p> <p>Results The teeth in coke lost an average of 0.05% of their weight. The teeth in the sugar solution lost 0.01% of their weight and the teeth in the acid solution lost 0.03% of their weight.</p> <p>Conclusions/Discussion In this experiment I set out to find out what component of coke causes tooth decay. Based on my observations the acidic solution caused the more damage to the teeth based on weight and observation than the sugar solution.</p>	
Summary Statement Discovering what in coke dissolves teeth	
Help Received My parents helped me with lay out of the board, calculations and remembering to weigh the teeth	