



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Michelle C. Desrosiers	Project Number J0307
Project Title What Are the Weakest Taste Thresholds for Sweet, Sour, and Salty Solutions?	
Objectives/Goals To find the weakest taste thresholds for sweet, sour, and salty solutions.	
Abstract	
Methods/Materials Salt(sodium chloride)-10 grams, Granulated Sugar(sucrose)-10 grams, Vinegar(acetic)-2 ml, Distilled water- approximately 800 ml, Stirring rod or spoon-1, Gram balance- 1, 100 ml graduated cylinder- 1, 10 ml graduated cylinder- 1, Cotton swabs- approximately 15, Paper cups- approximately 15, Paper towels- approximately 15	
Results Sugar Solution 10%= 0 people, 1%= 75 people, 0.1%= 22 people, 0.01%= 3 people Salt Solution 10%= 0 people, 1%= 2 people, 0.1%= 97 people, 0.01%= 1 person Vinegar Solution 10%= 0 people, 1%= 0 people, 0.1%= 57 people, 0.01%= 41 people, 0.001%= 2 people	
Conclusions/Discussion My findings from this science fair project have pointed to approval of my hypothesis. I hypothesized that my lowest taste threshold for the vinegar solution would be 0.01% and this was proven to be true. When I participated in the experiment I was able to detect the taste of the vinegar until I reached the 0.01% solution where I could no longer taste the vinegar. The lowest taste threshold documented was 0.001%, which was detected by two people. This shows me that only a very small percentage of people have this sensitive taste threshold.	
Summary Statement This project is about diluting three different types of solutions to measure the lowest taste thresholds detectable.	
Help Received Participants helped by tasting solutions, mother helped by purchasing supplies, and father helped with board construction.	