



CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s) Katharine A. Baker	Project Number J1002
Project Title Taste Perception	
Abstract Objectives/Goals The objective of this project was to find out how different tastes (bitter, salty, sweet, minty) affect the taste that follows it. I predicted the manipulated variables (orange juice, potato chips, chocolate and toothpaste) would affect how much the participants liked the responding variable (the taste of my homemade peanut butter after tasting the above items). Methods/Materials The materials used: Homemade Peanut Butter, Tropicana Orange Juice, Lays Potato Chips, Hersheys Chocolate bars, Crest Mint Toothpaste, Arrowhead Bottled Waters, 2 oz. soufflé cups, miniature plastic spoons, 31 Questionnaires, blender, pens. These methods were followed: 1. Participants were asked if they have any food allergies 2. The items were set up in six soufflé cups, 3. Participants were told to rate how much they liked the peanut butter after tasting bitter, salty, sweet, and minty items on a Hedonic scale of 1 to 5. 4. They completed questions as they tasted items; 5. Everyone was thanked for participating. Results After 31 participants completed experiment, I inputted the data in Microsoft Excel. The following scores are the average of how much they liked the peanut butter after tasting each item: Peanut Butter: 4.2580645; Tropicana Orange Juice: 4.1290322; Lay's Potato Chips: 3.6774193; Hersheys Chocolate: 4.6129032; Crest Mint Toothpaste: 2.5806451. A Taste Perception Bar Graph shows these results. I checked the difference in tasting preferences between the 12 males and 18 female testers. A double bar graph compares their taste perception differences. The surveys are found in the back of my science notebook. Conclusions/Discussion I predicted the manipulated variables would affect how much the testers liked my homemade peanut butter. My prediction was the testers would prefer eating the sweet item before the homemade peanut butter. My hypothesis was correct! I also stated the participants would like the salty item before the peanut butter second best and the bitter item, third best. These predictions were incorrect. After conducting my project on how different tastes (bitter, salty, sweet, minty) affect the taste that follows it, I learned no two people are alike in their food preferences and some combinations are liked more than others. Finally, to answer my investigative question, different tastes do affect the taste that follows it.	
Summary Statement My project examines how different tastes (bitter, salty, sweet and minty) affect the taste that follows it.	
Help Received My mom drove me to grocery store and to participant homes. My dad showed me how to get started on Microsoft Excel.	