



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Halie J. Swanson	Project Number 31618
Project Title Which Brand of Orange Juice Contains the Most Vitamin C?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals "Which brand of orange juice contains the most Vitamin C?" The purpose of this experiment was to discover which brand of orange juice would contain the most vitamin C. The hypothesis of this experiment was: "If the fresh-squeezed orange juice is the healthiest choice of orange juice, then it will contain the most vitamin C of the three brands." The control of this experiment is a 1 mg/mL vitamin C standard solution made by combining a 250 mg vitamin C tablet with 250 mL of distilled water. This project captivates interest because it could benefit the community by having the knowledge of which type of orange juice is better for your health to drink.</p> <p>Methods/Materials Using a fifty milliliter buret, one would titrate iodine into a twenty milliliter sample of orange juice and starch indicator solution until an oxidation-reduction reaction occurred. This process was used six times for each of the three types of orange juice and the vitamin C tablet, resulting in twenty four trials total. When each trial was completed, the product would be the amount of iodine it took to titrate a twenty milliliter sample of orange juice and starch indicator solution.</p> <p>Results The Vitamin C tablet contained 13.7 mg of vitamin C. The Florida Natural (premium) contained 9.8 mg of vitamin C. The Minute Maid (concentrate) contained 9.6 mg of vitamin C. The Fresh Squeezed orange juice contained 11.7 mg of vitamin C.</p> <p>Conclusions/Discussion These findings were what one would find, and expect to find, while doing this project. However, the most surprising discovery was that the fresh-squeezed orange juice contained more vitamin C over premium and concentrate orange juice. One would believe that fruits grown on trees and then squeezed and drunk right away would not have a higher vitamin C content then orange juice processed with natural cleansers.</p>	
Summary Statement The purpose of this project was to show which brand of orange juice contained the most Vitamin C.	
Help Received mother helped supply materials for experiment	