



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Suevana Ayala	Project Number J0502
Project Title The Effect of Peanut Coating on Calorie Content	
Abstract Objectives/Goals The objective is to determine the difference in calorie content for peanuts with different coatings. Methods/Materials 45 plain peanuts were used as a control and compared to 45 sugar coated and 45 salted peanuts. A calorimeter was used for measuring the temperature change of the water and the peanuts mass change was recorded after burning was completed. Peanut energy in kcal was calculated by multiplying the change in water temperature by .2 L. Lastly, kcal per gram of nut burned was calculated by dividing the peanut energy by the mass change of the nut. Results The plain peanuts (control) had an average of 1.78 kcal/gram while the sugar coated peanuts had an average of 4.13 kcal/gram. The salted peanuts had an average of 2 kcal/gram. Conclusions/Discussion Using 10% confidence intervals, a significant difference can be found between the calories of sugar coated peanuts and that of plain or salted peanuts. However, there is no significant difference in the number of calories between plain or salted peanuts. This data suggests that those persons concerned about calories should avoid sugar coated peanuts in favor of salted or plain peanuts.	
Summary Statement This experiment determines the calorie content of peanuts with different coatings.	
Help Received My science teacher, Mrs. Harris, helped me build the calorimeter and showed me how to make the necessary calculations for peanut energy and kcal per gram of nut burned.	