



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Faith Helms	Project Number J1908
Project Title Sugar Rush: Good to Eat a Bunch?	
<p style="text-align: center;">Abstract</p> <p>Objectives The objective of this study is to determine if a healthier sugar substitute provides equivalent or better taste in a Tollhouse Chocolate Chip Cookie recipe.</p> <p>Methods Sample A, no substitution. Sample B, replaced white sugar with honey. Sample C, replaced white sugar with maple syrup. Sample D, replaced white sugar with stevia. In a blind taste test, 42 6th grade subjects tasted all four samples and ranked them by taste on a scale of 1 to 5.</p> <p>Results I calculated the mean of four samples from the 42 subjects. The healthier sugar substitutes of maple syrup and stevia received better mean ranking results than the standard ingredient white sugar. Stevia received the highest mean ranking in taste while honey received the lowest mean ranking in taste.</p> <p>Conclusions Although I did not have the 42 subjects rank the cookies on health, two of the healthier cookies, maple syrup and stevia, outperformed the traditional cookie recipe on taste. Based on my study, people should use a healthier substitute for sugar since they are not sacrificing taste. Per this experiment, stevia would be the recommended choice in substitute.</p>	
Summary Statement In a blind taste test, I statistically found stevia to be an optimal substitute for white sugar in a Tollhouse Chocolate Chip Cookie recipe.	
Help Received I received help in my statistical analysis of the data from Eric Helms, math teacher at Fortuna High School.	