



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY**

Name(s) Madeleine Larson	Project Number J1216
Project Title Gender and Bitter Taste Perception	
<p style="text-align: center;">Abstract</p> <p>Objectives The objective of the study is to determine whether females perceive bitter taste differently than males.</p> <p>Methods Used Google spreadsheet to record the data. Tested with cocoa beans, coffee beans, PTC paper, and arugula using human test subjects.</p> <p>Results After 179 people were tested with my items, the testing showed a major difference in bitter taste perception between males and females. The largest difference occurred with the cocoa beans and the smallest with the arugula.</p> <p>Conclusions Proving my hypothesis correct, females taste bitter flavors stronger than males. If foods have gone bad or rancid there is a greater chance of a woman tasting that it is bad due to a female's stronger sense of taste. The reason for the difference in flavor perception is not known, but my hypothesis is that when humans were hunters and gatherers the women were the gatherers and they needed to know what plants were safe to eat. Therefore, I have come to the conclusion that females perceive bitter taste stronger than males.</p>	
Summary Statement I tested 179 subjects with bitter foods and found the average bitter rating with males and females, coming to the conclusion that girls perceive bitter taste stronger than boys.	
Help Received Dan Dummet, Chris Thibodeau, Natalie Wasley, and Union Hill school.	