



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Alice S. Lau	Project Number J2412
Project Title How Sweet It Is: Ants and Sugar Experiment	
Objectives/Goals Abstract The project, How Sweet It Is: Ants and Sugar Experiment, is a scientific experiment that determines if ants, in their natural habitat, can tell the difference between real and artificial sugars when different types of sugars are presented to them at the same time, place and condition. This project was designed to test my hypothesis that ants can tell the difference between real sugars and artificial sugars and that the ants will consume the natural sugars before going to artificial sugars. Seven different types of sugars were placed on different plates and observations were performed over a fourteen-day period to observe what ants prefer. Two natural sugars, Pure Cane Sugar and Brown Sugar were used. Five artificial sugars were used, Dextrose (Glucose), Equal (Aspartame), NutraSweet (Neotame), Splenda (Sucralose) and Sweet N Low (Saccharin). Water was used as the control. The experimental data obtained proved my hypothesis to be correct. Most ants preferred the Pure Cane Sugar and a small amount going to the Brown Sugar. After the depletion of the Pure Cane Sugar, the ants started to go to the Brown Sugar and small amounts of ants going to Dextrose. No ants went to the other artificial sugars.	
Summary Statement This project is about whether ants prefer natural sugars or artificial sugars in their natural habitat.	
Help Received Parents bought materials; Science teacher (Ms. Guy) gave me encouragement.	