



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Alyssa (Aly) R. Neistadt	Project Number 33937
Project Title Prokaryotes and a Prandial: Identification of Bacteria Colonies in Restaurants	
Abstract Objectives/Goals My objective was to identify the quantity of bacteria, types, and potential health risks associated with the bacteria found in fast food establishments. I compared the overall health risks of each restaurant according to the amount of harmful bacteria found. My hypothesis is that In-n-out will be the most sanitary and that McDonald's will be the least sanitary. Methods/Materials I cultured bacteria from five specific objects in four different fast food restaurants using sterile materials. I recorded the bacteria growth daily for six days. Next, I identified the bacteria using gram staining techniques, a microscope, and extensive research. Results After totaling up the bacteria colonies found in each restaurant and identifying whether or not the bacteria was harmful, I determined that In-n-out was the most sanitary. The In-n-out samples grew fewer colonies of bacteria overall, and 90% of bacteria that did grow were not harmful. Carl's Jr. was the most unsanitary, it grew more colonies than the other restaurants, and harmful bacteria was found in three of the five objects tested. Conclusions/Discussion The results of my project showed which local fast food restaurants were the most sanitary. This project also revealed certain areas in the restaurants that were prone to bacteria colonies. Using this information, fast food restaurants could be more aware of which areas demand special attention, and how to prevent bacteria proliferation.	
Summary Statement My project is about cultivating and identifying bacteria found in various fast food restaurants.	
Help Received Mr. Williams helped me format my board; my father drove me to the restaurants I swabbed; my mother helped me take pictures.	