



**CALIFORNIA STATE SCIENCE FAIR  
2014 PROJECT SUMMARY**

<b>Name(s)</b> Gianna A. Guzman	<b>Project Number</b>  34757
<b>Project Title</b> Growing a Soil Menagerie	
<b>Objectives/Goals</b> My objective was to find out what different types of organisms grow in different environments and whether they prefer light or darkness. <b>Abstract</b> <b>Methods/Materials</b> Materials used were: mud, sand, and water collected from the beach and a creek, 4m soda bottles, rubber bands, saran wrap, desk lamp, LED flashlight. Procedure: I collected mud from the Laguna Canyon Creek and sand from Laguna Beach, as well as water from both locations. I put the samples into empty water bottles to be used as Winogradsky columns. I placed two of the bottles (one with sand and one with mud) directly in the sunlight during the day and under a desk lamp during the night. Two other bottles have remained in the dark. These bottles have been sitting for about 14 weeks. <b>Results</b> The soil samples began to grow different types of organisms throughout the 14 week period. <b>Conclusions/Discussion</b> My conclusion is that the majority of the organisms that grew in the creek mud did not thrive in the beach sand and that they prefer the sunlight.	
<b>Summary Statement</b> My project is about the different microbe colonies found in different environments and how do they react to light and darkness.	
<b>Help Received</b> My mother helped me by driving me to the different sites to collect samples, type the report, and collecting and prepping supplies.	