



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Akayah D. Smith	Project Number J0910
Project Title Effect of Solar Radiation on Water and Land	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The goal of this project was to examine the ways in which solar radiation affects the heat of two different surfaces, land and water. The purpose of my experiment was to answer the testable question, "What effect does solar radiation have on land or water and how does it increase the temperature of each surface?"</p> <p>Methods/Materials To conduct this experiment, I selected two identical plastic containers, two scientific digital thermometers, distilled water, clean sand, and a stop watch. I filled one container with two inches of water and the other container with 2 inches of clean sand. I placed each container in direct sunlight at the same time of the day in the same location to take temperature reading in 10 minute intervals over a 30-minute period of time. I recorded the results and plotted the data on a graph.</p> <p>Results A review and evaluation of data collected from all trials (10) supported the idea that the solar radiation causes water to warm quicker than land. Data examined also indicated that water warms faster but land stays warmer longer.</p> <p>Conclusions/Discussion Overall, the review of the data collected during the experiment answered the original testable question, "What effect does solar radiation have on land or water and how does it increase the temperature of each surface?" My hypothesis was proven that water surfaces will warm faster than land surfaces. These findings are similar to other research studies showing how solar radiation affects different parts of the Earth's atmosphere, land, and oceans. Some surfaces heat up faster and some materials absorb more radiation and hold it longer. In reality, this has an impact on our daily lives, agricultural produce, and length of growing seasons.</p>	
Summary Statement Solar Radiation affect land and water surfaces in different ways.	
Help Received Ms. Kristin Lucas, City Tree Christian School, 7th grade teacher; and my grandfather. There was no University assist with this project.	