



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Anna D. Sohn	Project Number 38268
Project Title The Effect of Heat on Bean Plant Growth	
Abstract Objectives/Goals The objective of this experiment is to test the effect of heat on bean plant growth in relation to climate change. Methods/Materials 60 bean plant seeds in pots, 3 small greenhouses, 75W heat lamp, 150W heat lamp, moisture meter. Temperature measured 3 times daily. Moisture measured daily and watered accordingly. Height measured daily over 3 weeks. Results The hypothesis was proven false; the plants that grew tallest, an average of 15.3 centimeters, were in the 31 degree celsius greenhouse. The plants that were in the greenhouse measuring 28 degrees celsius grew an average of 14.1 centimeters. The control, which was 22 degrees celsius, grew an average of 10.7 centimeters. Conclusions/Discussion Measurements over 3 weeks showed that the warmer the greenhouse, the taller the bean plant grew. It was observed that the plants in the heated greenhouses were less healthy looking. This experiment concluded that heat makes bean plants grow taller, but not necessarily healthier. Future experiments, especially ones regarding climate change, can be built upon with this information.	
Summary Statement This experiment tests the effects of heat on bean plant growth, specifically in relation to climate change.	
Help Received I received basic assistance from my mom. She measured the temperature inside the greenhouses once a day, while I was at school.	