



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Zainab Husain	Project Number J0618
Project Title How to Grow Homemade Stalactites	
Objectives/Goals The objective of this project is to determine the growth of stalactites under various temperatures.	
Abstract Methods/Materials Water, Epsom salt (about ten pounds), pieces of rope (thirty centimeters each), ten identical glasses, a heat lamp, ten trays, a spoon, a fridge, and ten clips were used. An infrared thermometer and a ruler with millimeters were also used to make my measurements. Fill water up to the top of the glasses. Add Epsom salt to the water until it does not dissolve anymore. More salt can be dissolved in a hot solution so it is best to dissolve the salt in a pot on the stove. It is best to dissolve the salt a little bit at a time so that the salt dissolves faster. Bend the rope so that it looks like an #m#. It is optional to put paperclips at the end of each glass to secure the rope. Dip the ends of the rope into the two solutions. Put the glasses on the tray to catch the dripping water. Put two of the glasses each on a tray in the following locations: In the fridge, garage, in the warmth of a heat lamp, on the balcony, and in room temperature. The water will climb up the rope and it will drip. Water that has been saturated with Epsom salt should also be added to all of the cups. (Make sure to add the same amount of water and Epsom salt to the cups). In three days your stalactite will have eventually grown many centimeters. Now you can carefully disconnect your stalactite from the end of the rope. Conclusions/Discussion For my experiment, my hypothesis was that the room temperature stalactite would grow the fastest and I was right because I knew stalactites grew in warmer temperatures rather than colder temperatures. Moderate (room) temperature inside the house proved to be most suitable for consistent growth of stalactites. Cold outdoor temperatures slowed down the flow of water on the ropes and therefore the Stalactites grew slowly. The heat lamp increased the temperature too much and caused some of the water to evaporate instead of traveling across the rope.	
Summary Statement My project is about the growth of stalactites under various temperatures.	
Help Received I researched how Stalactites are formed over time and set up the experiment. Dad supervised to make sure I was safe while heating up water to make the salt solution. Mom helped shop for the materials.	