



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Natalie T. Hovsepian	Project Number 31887
Project Title Saltwater Desalination: Creating More Freshwater	
Abstract Objectives/Goals My project was to determine at which heat level I could collect the most freshwater by desalinating saltwater with a homemade model. Methods/Materials Saltwater similar to sea water was made by adding 35g of salt to every liter of water. 200mL of saltwater was put into a teapot and boiled once at low heat, a second 200mL at medium heat, and a third 200mL at high heat. A turkey basting tube was attached from the teapot to a stainless steel bottle in a bowl of ice. As water evaporated it travelled through the tube and into the bottle, condensing into fresh water. I then measured the amount of fresh water collected at each heat level and compared my results. Results The most fresh water was collected at low heat for each of the three trials. Conclusions/Discussion I was successful in proving my hypothesis correct by performing this project. Being careful to cover all gaps where vapor could escape, I was able to discover how best to desalinate salt water in order to collect more fresh water condensate. I had been correct in guessing that putting the salt water onto low heat would allow more fresh water to slowly collect. I was able to come to this conclusion because I was aware of the inevitable gaps and flaws of my model. Because I was aware of its imperfections, I was able to base my conclusion on the fact that if I allowed the water vapor to evaporate slowly on low heat, I could work around the flaws and collect as much fresh water condensate as possible. At an ideal facility, heat level would not matter and humans can be provided with drinking water taken from our vast oceans.	
Summary Statement Creating freshwater from saltwater using a home made model.	
Help Received My mother helped review my results and my science teacher Miss Skaff guided me through the science fair process.	