



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Aneyah D. Parks	Project Number J1020
Project Title Solar-Powered Water Desalinator	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My project was about desalination to remove the salt from water to make it drinkable. The current methods of desalination are very expensive, and are not safe to the environment and to humans. In my project, not only is the desalination using ready, available materials, but cheap ones too. My goal is to find the material that desalinates water best in this solar-powered water desalinator.</p> <p>Methods/Materials I mostly use a one-gallon and 16 oz. water bottle in the desalinator. I put the saltwater in the one-gallon bottle, and when it evaporates, it collects at the low point and drips down into a small container where it then flows out of the one-gallon bottle into the bottom half of the 16 oz. bottle through a straw. I then measure the salinity (in ppt) of the collected condensate.</p> <p>Results My data shows that aluminum foil was the material that reduced the salinity of the saltwater best, with an average salinity reduction of 32.6 ppt. Plastic cling wrap was the second best, with an average of 31 ppt. Level four plastic was the third best, with an average of 30.8 ppt. Biodegradable was paper was the worst with an average salinity reduction of 0 ppt.</p> <p>Conclusions/Discussion The data tables and graphs displayed on my board support my hypothesis that the aluminum foil desalinator would have the highest salinity reduction average. As shown in the graphs and tables on my board, aluminum foil had an average salinity reduction of 32.6 ppt, plastic cling wrap of 31 ppt, level four plastic of 30 ppt, and biodegradable wax paper of 0 ppt.</p>	
Summary Statement My project is about water desalination.	
Help Received	