



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> <b>Kai R. McNamee</b>	<b>Project Number</b> <b>J0618</b>
<b>Project Title</b> <b>Desalination: Will the Ocean Be the Future Source of Our Fresh Drinking Water?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The worldwide demand for fresh water is on the rise. Will the oceans be the source of our future drinking water? To help answer this, I have created a question to test: Which method of desalination is preferred within the criteria of speed, efficiency, and cost of materials? <b>Methods/Materials</b> Three methods were tested. 1) Evaporation and Condensation: using a pressure cooker and copper tubing. 2) Freeze and Thaw: testing the salinity before and after freezing. 3) Boiling: testing the belief that boiling produces fresh water. <b>Results</b> The pressure cooker method produced the greatest volume of fresh water quickly. Freezing also works, but is slow. Boiling in an open container actually increases salt content. <b>Conclusions/Discussion</b> The pressure cooker requires expensive equipment and a constant heat source, which may create its own environmental problems. Freezing is cost efficient, but may not be practical for most of the world's climates. One would have to consider financial resources and environment in whether or not a particular method is a good choice for their situation.	
<b>Summary Statement</b> Testing desalination methods in order to make ocean water potable.	
<b>Help Received</b> Parents helped procure hardware, take photographs, and affix papers to display board.	