

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

Gabriella P. Glover

Project Number

J1112

Project Title

What Is the Best Method of Desalination?

Abstract

Objectives/Goals

The objective of this project is to determine the best way to desalinate sea water.

Methods/Materials

In this project, I will compare three different methods of desalination; filtration, reverse osmosis and distillation. I will use the appropriate apparatuses for each of these methods to determine wich is the most efficient.

Results

Distillation proved to be the most effective method of desalination.

Conclusions/Discussion

I was very happy with the results from two of the procedures. The Reverse Osmosis procedure didn#t work out as I wanted. The salt water sample that was used for the experiment was contaminated with oil. Therefore, the oil formed a layer over the Reverse Osmosis membrane not letting any water pass. I found the oil in the distilled water from the distillation procedure. The oil had formed a thick and visible layer on top of the distilled water. The distillation procedure worked very well. I was surprised at the large amount of salt collected. The filtration process took a few tries. I tried using 1 filter, then 2 filters, and then finally set in with 3 filters. The process was successful. The water was flowing through the filters at the right speed with 3 filters. In the end the most effective method was distillation because it produced the greatest amount of fresh water.

Summary Statement

My project is about determinibg the best method of desalination.

Help Received

science teacher, mother, father