CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
22316

Project Title
World Wide Shortage of Fresh Water

Abstract

Objectives/Goals
A Seventh grader discovers through research that drinking water is not cheap and is also in short supply, potentially a problem for our society, particularly here in San Diego.

Methods/Materials
The student explored the nature of salt water and researched ways it can be used, particularly to find methods of desalination that are inexpensive. The student designed and used three methods The student found that making fresh water from sea water can be done economically.

Results
Throughout history there have been ways to obtain fresh water from Salt Water. Most people know from stories about shipwrecked sailors afloat in a raft on the ocean say that if you drink salt water you will get sick and eventually die, because our body#s cells would dehydrate. But that doesn#t mean you can#t make sea water drinkable. The two main methods of changing salt water to fresh are desalination and the freezing method.

Conclusions/Discussion
In the last thirty years, the cost of pumping fresh water to San Diego from Sacramento and the Colorado River has gone from cheap to expensive. In 2001 when there was a big increase in energy costs, the State of California publicized that the Department of Water & Power was the largest user of energy in the State of California. They spent Over a billion dollars of electricity to pump water from Northern California to Southern California in one year! In addition, worldwide demand for drinking water doubles every 20 years. Now is the time to plan alternative for are water supply.

Summary Statement
Creating fresh water using solar desalination.

Help Received