California Science Center

CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)

Viviana Huang

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)

Effect of Oil Film on the Evaporation Rate of Water

Science Fair Use Only

S0506

Division

S Junior (6-8) S Senior (9-12)

Preferred Category (See page 5 for descriptions.)

5 - Earth Sciences/ Planetary Sciences/ Physical Environments

Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

Cases of water shortages around the world have caught my attention. In order to learn about one of the possible ways to slow the process of evaporation, I have chosen to answer the question #Does oil film have an effect on the evaporation rate of water?# In other words, does placing a thin oil film over the surface of water slow its evaporation rate?

First, I had 4 different types of oil consisting of corn, soybean, vegetable, and sesame oil. For each of these four oils, I had 16 cups of water divided into 4 sets of 4, all having the same amount. In the 1st set of each oil group I placed one drop of that oil into the cup. 20 drops were placed in 4 other cups of water of the 2nd set of each oil group. An oily finger was merely swished through the cups of the four others in the 3rd set, and the last 4 sets had no oil at all, this would be the control. All of the 16 trials were placed under the same conditions. Every other day, I measured and recorded the water levels in each of the 64 glasses of water for a period of 2 weeks.

After conducting the experiment I found that all of the water in glasses containing at least one drop of oil or more, evaporated slower than the ones without oil (control). The cups containing 20 drops of oil turned out to be the ones with more water.

Thanks to all the people who have helped me throughout the course of this project. Thanks to my mother, Mrs. Smith, the librarians at BPL, and to all the teachers.

Summary Statement (In one sentence, state what your project is about.)

The effect of oil on water evaporation.

Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.

mother helped set up project; teacher helped with report;