



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Li N. Schmidt	Project Number J0623
Project Title Can We Dew It?	
Abstract Objectives/Goals Can I collect enough water from the atmosphere, in the form of dew, to supply my daily drinking needs? Methods/Materials The materials I will need for my experiment are, a stopwatch, containers filled with cold water (soda cans), an electric scale, a thermometer, and an instrument to measure the humidity. My procedure was first to set a container on a scale. Then, I measured the temperature of the water and poured the water into the container. Then I watched the clock and the scale to see how much the scale was gaining each minute. Knowing the amount of dew formation over time will allow me to figure out how many containers I will need to collect enough drinking water for one day. Results : I recorded my data for two different days. During the first experiment, the temperature was 66 Fahrenheit (F) and the relative humidity (a measure of the amount of moisture in the air) was 44%. During the second experiment, the temperature was 64 F and the relative humidity was 48%. For both experiments, the water in the can was 38 F. The amount of water collected on the moist day was nearly twice as much than the water collected on the dry day (0.27gm vs. 0.16gm). Conclusions/Discussion The water forms on the can in both experiments because the moist air next to the can cools and eventually forms water. The second experiment collected more water because there was more moisture in the air. Since I drink five cups a day, I would need 60 cans to collect my drinking water for one day. This is if I could keep the cans cold and collect the water every 20 minutes. You can see that you could easily collect enough water, even here in California, to meet a person's daily drinking needs. If it is used on a larger scale, I think my experiment could help solve California's water problem without polluting the environment.	
Summary Statement My project was to see if I could collect enough water from atmosphere, in the form of dew, to help solve California's drinking water shortage.	
Help Received I made my measurements on an electric scale at the Naval Post Graduate School; My Dad taught me how to plot the data using Microsoft Excel; My Dad bought my science board.	