



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Kathryn C. Hund	Project Number 22768
Project Title The Effect of Slope Aspect on Environmental Conditions and Vegetation (Slope Aspect Study)	
Objectives/Goals My objective is to determine if environmental conditions and vegetation on north and south facing slopes will be different due to the differences in the amount of solar radiation they receive. I believe there will be significant differences between north and south facing slopes. Abstract Methods/Materials I tested my hypothesis on a ridge in Idyllwild, California. I chose a location where the soils and steepness of slope were similar for both aspects. I stratified the sample on the ridge, establishing six sampling locations in pairs of three. Each pair was at the same elevation, with one station on the north facing slope and one on the south facing slope. Measurements of air, water and soil temperature, relative humidity, and wind speed were taken. I identified and recorded the vegetation composition and frequency around each station. The data for both aspects was compared and analyzed. Results I found significant differences between north and south facing slopes for air, water and soil temperatures and wind speed. Relative humidity was nearly the same for both aspects. I found a significant difference in vegetation composition between north and south facing slopes. There were more and taller trees on north facing slopes and more shrubs on south facing slopes. Some plant species were only found on north facing slopes while others were only found on south facing slopes. Conclusions/Discussion Slope aspect affects local climate and vegetation. This has important implications for home design and location, agriculture and fire management.	
Summary Statement My project is about the effects of different slope aspects on environmental conditions and vegetation.	
Help Received My father helped me with the experimental design and data analysis. My father and mother helped me assemble the poster board.	