



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Madison V. Davis	Project Number J0604
Project Title The Weather Outside Is Frightful	
Abstract Objectives/Goals The objective of this project is to determine if microclimates occur in the city of Brisbane and if the topography of the mountain causes these microclimates to occur. Brisbane is confined on the northeastern slope of San Bruno Mountain with a geographic boundary of about 2 miles. Methods/Materials I selected six sites in which to collect my data, which were divided into two grids. The sites represent a variety of altitudes and locations in proximity to the mountain and the nearby San Francisco Bay. These sites are within a radius zone of about 1-2 miles. I conducted my experiment by measuring barometric pressure, wind speed, and temperature for fifteen days at 8:00am and at 3:00pm each day. The data was added and averages were calculated for each site in each category. Results Microclimates do exist in Brisbane. Sometimes the temperature would vary from 2-10 degrees between sites and the wind speed would vary from 0-20 mph between sites. The location closest to the mountain was shielded by the wind but cast in its shadow, and the locations further away were windier but had warmer temperatures. The results of the warmest, coldest, windiest and calmest location varied slightly from my prediction. Conclusions/Discussion My conclusion is that the topography of the mountain creates microclimates within the city of Brisbane. I learned that our town is located on an amazing mountain with a variety of climates in a very small geographic area.	
Summary Statement The purpose of my project is to determine if microclimates exist in Brisbane and if the topography of the mountain creates these microclimates.	
Help Received My mother drove me to my selected sites to record data. Bob Dettmer, the volunteer science adviser, gave me advice on my project. Tim Tune from the planning department supplied me with topographical maps.	