



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Gavin A. Cornett	Science Fair Use Only S0402
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) The Effectiveness of SPF Sunscreen Lotions	Division _ Junior (6-8) <u>X</u> Senior (9-12)
Preferred Category (See page 5 for descriptions.) 4 - Chemistry	
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.	
<p>OBJECTIVE: The objective was to measure, quantify, and compare the ultra-violet absorption of three 'over the counter' brands of 8,30, and 45 'SPF' sunscreen lotions.</p> <p>METHODS: Using a UV light source, the UV filtering ability of a standardized sample of each lotion was measured. The filtered UV light was detected using a photoelectric eye and measured with an ampmeter. Five runs of each lotion's SPF 8,30, and 45+ were completed and compared to zinc oxide lotion. The mean values and standard deviations were calculated and tabulated.</p> <p>RESULTS: Increasing 'SPF' value did increase the UV filtering property of the tested lotions. However, certain products (store brand) demonstrated significantly less UV filtering properties than the 'name' brands.</p> <p>CONCLUSIONS: 'SPF' sunscreen lotions are effective UV filters. The higher the SPF value, the more UV energy is filtered. It may be better to spend a little more and use a name brand lotion for maximum UV protection.</p>	
Summary Statement (In one sentence, state what your project is about.) This experiment measures, quantifies, and compares the UV filtering properties of "SPF" lotions.	
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. My Dad helped me use the UV light. I borrowed the UV light from Ventura Community College.	