



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Madalyn A.F. Morris	Project Number J1228
Project Title Sizzling Hot Sunscreen 2: Waterproof SpooF	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this project is to determine whether or not being waterproof affects the SPF level of sunscreen based off of previous tests. The sunscreens with an SPF of 30 will not work better than 30 and being waterproof of the sunscreen will aid sunscreen performance in UV light.</p> <p>Methods/Materials 1x1 inch pieces of banana peel, 225 3#x 4# pieces of S.G.P., 225 3# x 4# pieces of overheads, log, pens, fake sun light, scissors, plastic syringe, 9 different sunscreens, banana mats. Rub 1/10 tblspn thoroughly onto a banana piece. Place on setup on banana mat according to SPF level, and brand. Leave them in fake sunlight for 30 minutes, checking back every 2 minutes. The same procedure is used for all sunscreens. On 2nd time, use real sunlight. Rub 1/4 tblspn of sunscreen thoroughly onto a transparency. Place on setup on SGP mat according to SPF level, and brand. Attach SGP to overheads and place on SGP mats. Leave them in A.S. for 7 minutes, checking back every 1 minute. The darker the color of the SGP, the more amount of protection. The same procedure is used for all sunscreens. Repeat all, for each sunscreen twice. Repeat and use real sunlight. Repeat all, but wetting all tests.</p> <p>Results After 3 trials with the banana peels it was determined that the banana peels did not show any difference between each other enough for there to be any data collected. It was determined there would be no promising way to get any useful data. The S.G.P. results had better results than the banana peel method. It took longer for the tests to obtain full exposure from the fake sunlight, so it was determined that the time for the S.G.P. had to be extended to a longer time period. The sunscreens were affected by the water, even though they claimed to be waterproof, and they performed with harmful results. The controls that were taken had Hawaiian Tropics, SPF 30 perform the best yet again in both wet and dry tests. The sunscreen that performed the worst was Fruit of the Earth SPF 45 in both wet and dry tests. It protected with a roster number of 7 after only 12 minutes had passed in the tests.</p> <p>Conclusions/Discussion The hypothesis was rejected by the data. The hypothesis that being waterproof would not affect the results in a bad manner, but aid the sunscreen to help protect the skin. Being waterproof affected the results in a bad manner. It made the sunscreens perform much worse and they all performed terribly after being wet.</p>	
Summary Statement In my project, i tested how well SPF levels and being waterproof works to help protect your skin.	
Help Received Mom helped me buy needed materials., my teachers helped me deciding on a project and graded board.	