



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Abigail L. Chase	Project Number J2109
Project Title Sun vs. Sunscreen	
Abstract Objectives/Goals My project was to determine if sunscreen has any affect on sun-sensitive paper. I think the sunscreen will stop the sun from going through the plastic bag, to affect the sun-sensitive paper. Methods/Materials In a darkened room, one piece of sun-sensitive paper was sealed into each of nine resealable plastic bags. Three types of sunscreen with Sun Protection Factors of 15, 30, and 50 were spread onto the bags, three of each. The bags were paper clipped to a piece of cardboard, then placed in the sun for two minutes. After two minutes, the papers were taken out of the bags and developed in a tray of water for one minute. Then they were put on another cardboard to dry inside the house. Results My results showed the sunscreen did prevent the sun from affecting the paper. However, it had to do with how thick the layer of sunscreen was on different bags. The bags with a thicker layer resulted in more white exposure than the bags with a thinner layer of sunscreen. It didn't matter which SPF number I used because all three had the same result. Conclusions/Discussion In conclusion my hypothesis was correct because the sunscreen did stop the sun from going through the bag. I had an unexpected variable which affected the results. The amount of sunscreen on each bag was not equally measured: the thicker layers of sunscreen did not dry as fast, and the opacity stopped the sun from going through the bags. The thinner layers of sunscreen dried clear and allowed the sun through the plastic. On the other hand, my hypothesis was inconclusive due to the fact that I did not use equal amounts of sunscreen on each bag. If I were to redo this experiment, I would take that variable out by measuring equal amounts of sunscreen.	
Summary Statement My project is to find out if sunscreen will block the sun from going through a plastic bag, affecting sun-sensitive paper.	
Help Received Mother helped by taking pictures, timing and with typing the report; Friend helped during the experiement	