



CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

Name(s) Sabrina Asefi; Anne Berg	Project Number S0603
Project Title The Effect of Different Sunscreens (Baby, Kids, Lotion, Spray, and Stick) on the Amount of UV Rays Protected by Your Skin	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project was done in the effort to find the difference between each form of sunscreen and how well the different types protected the skin. The sunscreens used for this experiment all had the same SPF, which was a scale that helped give an estimate of the time the synthetic skin can be in the sun.</p> <p>Methods/Materials The materials required for the experiment were mainly, the different types of sunscreens, provided by the Banana Boat Company, the ballistic gel, which was provided by the Barry Farm Company, and the sun sensitive paper, which came from Sun Art. The ballistic gel was laid on top of the UV paper and the sunscreen was evenly distributed onto the ballistic gel which acted as a synthetic skin. Then after 5 minutes, the color on the UV paper was recorder to measure the amount of protection each type of sunscreen had, based on its shade on the UV paper. The darker the shade, the less in protected. The amount of time was controlled to be the same for each trial. The experiment consisted of three tests in order to make sure that the data collected was the most accurate data possible.</p> <p>Results The experiment resulted in the Banana Boat Kids and Banana Boat Baby sunscreen to be the most protective. Following the kids and baby sunscreen, the stick sunscreen was proved most protective, and lastly the lotion sun screen, followed by the spray sunscreen. These results supported the hypothesis of the experiment to be true. The reason the baby and kids sunscreen was shown to be most protective was because that sunscreen is designed to protect their sensitive skin. The results concluded that children and baby's skin is well protected, as well as the face. Overall the deviation was low, almost all were around 0%. The deviation for the kids and baby sunscreen were both 0%, while the deviation for both lotion and spray were 6.7%.</p> <p>Conclusions/Discussion The hypothesis formed before the experiment was supported by the data. From the results of this experiment, it can be concluded that the kids and baby sunscreen were the most protective, followed by the stick and lotion form of sunscreen, and then the spray can last in the amount of protectiveness. These results also showed consistency which supported the idea that sunscreen is a reliable source of protection. The belief that the kids and baby sunscreen was the most protective was because of the ingredients used to protect children's and baby's sensitive skin.</p>	
Summary Statement Our project was done in effort to discover the difference in the amount of UV rays protected from your skin between different forms of sunscreen.	
Help Received We would like to acknowledge our parents for assisting us in the process of our experiment, and giving us ideas that helped improve our project. They also supplied all materials that were needed in order to perform the experiment. Additionally, we would also like to thank Ms. Herrman for helping us format our	