

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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Project Number

J1839

Project Title

S.O.S. Save Our Skin: Will Sunscreens with Higher SPF Ratings Provide More Protection from Solar Radiation?

Objectives/Goals

Abstract

My objective was to determine if sunscreens with different SPF ratings actually provide varying protection from solar radiation. I believe that sunscreens with higher SPF ratings will provide more protection from solar radiation.

Methods/Materials

Four different SPF rated sunscreens of the same brand, baby oil, clear sheet protectors, and photographic paper were the primary materials. I spread an equal amount of different rated sunscreens on equally divided sections of a clear sheet protector. I also provided a control section and one section with baby oil. I slid a piece of photographic paper inside, and placed it in direct sunlight for a specific time period. I conducted 3 different tests for each of 3 different time periods.

Results

The sunscreen that was rated SPF 45 gave better protection than the lower rated SPF sunscreens and the baby oil. I discovered these results after developing the photographic paper and scanning each sheet into a computer. Using Adobe Photoshop I tested the luminosity of each section, recorded and compared the readings.

Conclusions/Discussion

Sunscreens with higher SPF ratings did provide more protection from solar radiation than sunscreens with lower SPF ratings.

Summary Statement

This project was to determine if there was varying protection from solar radiation between different SPF rated sunscreens.

Help Received

My parents helped me to gather materials. My Dad showed me how to scan the photo sheets into his computer and how to use the Adobe Photoshop program to get luminosity readings from each of the different sections of the photo sheets.