

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

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Project Number

J2215

Project Title

Economic Generic Brands vs. Name Brand Sunscreen

Abstract

Objectives/Goals

To determine which suncreen and SPF is most effective against UV rays. I will see if Economic Generic Brands or Name Brand sunscreen is more effective against UV rays. I will keep track of percent of UV rays blocked, time began, time ended, and the percentage of UV rays blocked.

Methods/Materials

I needed 1000 UV beads because I have tested 13 sunscreens at 3 times each for a specific amount of time. I have recorded the time I began from each test and the time ended. For example, SPF 15 was tested for 150 minutes, SPF 30 was tested for 300 minutes, and SPF 50 was tested for 500 minutes. I have also tested Zinc Oxide which was SPF 50 and that was tested for 500 minutes. Those are the maximum strenghs of the sunscreens. The sunscreens that I tested for Name Brand sunscreen are Coppertone, Zinc Oxide, and Banana Boat. For Economic Gerneric Brands I tested Rite Aid and CVS. I used the UV Beads because they are like skin cells and zipper lock bags because they are like skin. Before I test any sunscreen I would put one color of the UV beads in a zipper lock bag. I would use a camera and take pictures in the beginning, middle, and end of the test. That way I am able to see how well the sunscreen is protecting the UV beads. The UV beads are sensitive to UV rays. After I put the beads in the bag, I would set the beads on a paper towel and layer them with sunscreen. I layed the sunscreen indoors so it wouldn't get affected by UV rays. I used a measuring cup to help me make sure that there was an even amount of sunscreen on each zipper lock bag. I then used a timer once I set the sunscreen on a flat surface. When the timer came to a 150 minutes I toke the sunscreen out for SPF 15. And, when the timer hit 300 minutes I took the sunscreen out. And, when the timer hit 500 I was done with the test. I have recorded everthing in my notebook. I figured out the percent of UV rays blocked, SPFs, notes and data.

Results

I figured out that Name Brand sunscreen is more effective than Economic Generic Brand sunscreen. It is important to always wear the highest possible SPF. UV beads were the best way to test sunscreen.

Conclusions/Discussion

I can conclude that Name Brand sunscreen is the best to use because it blocks the most UV rays.

Summary Statement

My project is about determining which sunscreen type of Economic brands or Name Brands is most effetive against the suns UV rays.

Help Received

My teacher helped me edit my project and my sister helped me with the display board.