CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY

Name(s)
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Project Number
J0536

Project Title
Redheads, Blondes, or Brunettes?

Abstract

Objectives/Goals
The objective is to see which color hair lightens fastest under the sun and under an ultraviolet bulb.

Methods/Materials
Six different colors of hair were used. Four of the colors were natural hair and two were synthetic. The natural hair colors were black, light brown, red, and dark brown. The synthetic colors of hair were red and blonde. The pieces of hair were 18.5 mm long. To make the UV box wood, nails, and hinges were used. A UV bulb was put in and an electric cord was used to plug the bulb in. The hair was put on a cardboard box cover with drawer sticky paper on it, when it was out in the sun. Clothespins were used to secure the hair and string was used to tie it together. A color chart was used to compare the hair colors to their original color.

Results
Red natural hair lightens fastest under the sun. It lightened two shades. No hair colors changed under the ultraviolet bulb. The next hair color to lighten was the synthetic red hair in the sun. It also lightened two shades. Then the light brown hair lightened one shade. The synthetic blonde hair was last and it lightened one shade as well. The black and dark brown hair didn't lighten any.

Conclusions/Discussion
The conclsion was that red natural hair lightens fastest in the sun. The ultraviolet rays do not lighten hair, so the sun's rays must be stronger and have other elements in them.

Summary Statement
This project was done to see which color hair lightens fastest under the sun and under an ultraviolet bulb.

Help Received
Grandmother helped take hair in and out of the sun and turn UV bulb on and off if I was unavailable.