CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY

Name(s)
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Project Number
35406

Project Title
Fingerprints: Genetic Snowflakes?

Abstract

Objectives/Goals
My objective was to find out if siblings were more likely to share the same fingerprint category than unrelated individuals.

Methods/Materials
I took the right index fingerprint of 32 pairs of people, half sibling pairs and half unrelated pairs. I used a black ink pad designed for taking fingerprints. I used a magnifying glass to identify which type of fingerprint category it was. I compared the percentage of related pair matches and unrelated pair matches.

Results
In my hypothesis,I speculated that because DNA determines fingerprint patterns, siblings are more likely to have the same fingerprint category than two unrelated individuals. In conducting my experiment, the data I gathered supported my hypothesis.

Conclusions/Discussion
The percentage of sibling pair matches was higher than unrelated pair matches, by almost four times.This shows that siblings are more likely to share the same fingerprint category than two unrelated individuals, and proves my hypothesis.If I were to improve this experiment, I would collect more fingerprints in order to have a broader base from which to draw my conclusions.

Summary Statement
I took and compared the fingerprints of 32 pairs of people, half unrelated and half sibling in order to determine if siblings were more likely to share the same fingerprint category than two unrelated individuals.

Help Received
Mother helped glue paper onto board; parents helped give rides to collect fingerprints.