

# CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

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**Project Number** 

**J1107** 

**Project Title** 

**Pass the Print** 

#### **Abstract**

## **Objectives/Goals**

My goal is to determine if there are any similarities in families' fingerprints.

#### Methods/Materials

The materials were: Ink pad (Sirchie), different families(7), paper, pencil, the internet and a magnifying glass.

#### Results

Over all I tested seven families with a total of 34 people. Every family I tested had three generations of family members. The average number of similarities with grandparents and grandchildren was 1.2. The average number of similarities with grandparents and their children was 1.0. The average number of similarities for children and grandchildren was 1.8. The most common fingerprint was the loop, second was the whorl and third was the arch. On all of my similarity graphs there was either 2, 3, or 0 similarities. The most similarities were between children and grandchildren which was 1.8.

### **Conclusions/Discussion**

In conclusion, my hypothesis was partly right, even though one of my families did not have a similarity. All of my other families did have at least two similarities between the three generations. I did find a few problems collecting and analyzing my data. One error that could have affected my data was that each family did not have the same number of grandparents, parents and grandchildren. The reason that this really affected me was that it made it harder for me to compare my data between different sizes of families. Another thing that could have made a better experiment is if I had more and larger families. I am not sure how this project is significant to the community except to show how DNA affects families' fingerprints and that fingerprint patterns can be similar in families.

## **Summary Statement**

My project is about the similarities of fingerprints in families.

### **Help Received**

My teacher monitored my progress in the classroom.