



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> <b>Emma P. Clink</b>	<b>Project Number</b> <b>J1011</b>
<b>Project Title</b> <b>Inherited Fingerprint Patterns</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Determine if related family members have similar fingerprint patterns. Test related family members to see if fingerprint types are genetically inherited. I posed the question, "Do related family members have similar types of fingerprints?" <b>Methods/Materials</b> Study and learn to identify types of fingerprint patterns called dermatoglyphics. Acquired a Touch Signature ink pad from a local bank. Researched how to fingerprint and discovered that black ink and semi-glossy paper provides the best prints. I purchased a quality magnifying glass and practiced identifying the nine most common print patterns. I then chose four large families, including parents and children for thumbprints. I also set up a control group of ten random, unrelated people for fingerprinting. <b>Results</b> The complete spreadsheet of all people fingerprinted is compared and posted on my board. Offspring do have the same type of fingerprint patterns as one or both of their parents. Siblings are much more likely to have shared patterns than unrelated people. <b>Conclusions/Discussion</b> I concluded that members of the same family have similar types of fingerprints. My hypothesis was correct. The unrelated group varied in type more often than related families. I hypothesized that related family members have similar types of fingerprints. Like other genetic traits such as hair, eye and skin color, fingerprint types get passed down from parent to offspring.	
<b>Summary Statement</b> My project examines fingerprint patterns and proves that they are genetically inherited.	
<b>Help Received</b> Miss Connelly, my teacher, helped with filing of human specimen's form and guiding me with a timetable. I visited CSUN library to find articles about dermatoglyphics patterns and a librarian, Gina Hsuing, helped me find articles.	