



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2018 PROJECT SUMMARY**

<b>Name(s)</b> Clara L. Cady-Dreher	<b>Project Number</b>  38111
<b>Project Title</b> Let Your Fingers Do the Talking	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of this study is to determine if children carry the same fingerprint patterns as their biological parents.</p> <p><b>Methods/Materials</b> Standard FBI issued 10-print fingerprint cards, black fingerprint ink (both of which are used by law enforcement for clarity and consistency) and a lighted jeweler's loupe.</p> <p><b>Results</b> Several families with varying numbers of children were fingerprinted on standard FBI fingerprint cards with black ink. Fingerprints were classified into one of the 7 basic fingerprint pattern categories. Each fingerprint of each family member was further classed down into the 3 basic fingerprint pattern sub-categories. Each family member was compared with one another to find similarities and differences.</p> <p><b>Conclusions/Discussion</b> Several families were fingerprinted and compared and the results were consistent that no child carried a fingerprint pattern that one or both of their biological parents did not carry. Furthermore, when compared at the subcategory level, the results remained the same.</p>	
<b>Summary Statement</b> I found that children carry fingerprint patterns that one or both of their parents have.	
<b>Help Received</b> I conducted the fingerprinting of families myself. However, retired Evidence Technician and court qualified Latent Print Examiner reviewed my classifications to ensure they were correct.	