

<p style="text-align: center;"><b>Project Title</b> Name, School City, State</p>		<p style="text-align: center;">Project ID#</p>
<p><b>Q1: Research Question/Engineering Goal</b></p> <p>If fingerprints are collected and studied from one family, then will the fingerprint patterns be similar because the fingerprint DNA is passed on through the genetic make up of each set of parents? With the world we live in each individual is known to be their own person and their own being. However, this is shown even more when you look at everybody's individual fingerprints. Our fingerprints are not only used as a form of identification, but they are also our own individual signature that we were born with. However, we get our genetics from our biological parents. Our biological genetics affect how we look, talk, and grow up. These facts are what lead me to ask my project question, can our genetic makeup affect the patterns of our fingerprints?</p>	<p><b>Q3: Data Analysis &amp; Results</b></p> <p>From my data the mother and daughter shared similar Ulnar loop fingerprint patterns, and the father and son shared whorl fingerprint patterns. Therefore, my hypothesis would be considered plausible. The data shows that my hypothesis was semi supported because yes the father and son and mother and daughter shared similar finger print patterns, but I wouldn't consider my hypothesis 100% correct because the similarities could also be due to gender.</p>	
<p><b>Q2: Methodology/Project Design</b></p> <p>1) Have the individuals sign the proper consent form. This is EXTREMELY IMPORTANT. 2)Cut your sheets of paper into sections following the long direction on the paper. 3)Gather the family members and properly sanitize all of their right thumbs using the sanitizing wipes. 4)Give each individual a sheet of paper labeled with their relation to each other. 6) Open the ink pad and place the individuals finger in the ink pad rolling their finger from side to side to make sure you get a full print. 7) Get two samples of the fingerprint flat and then two rolling from left to right. If needed, re-ink the finger in between prints. Make sure to get two clear prints of each as you will use one to observe and one to write on. 8)Once you have gathered all the needed information from the individual, take them to a sink where you will clean their finger with water and soap or paper towel and isopropyl alcohol. 9) Use your magnifying glass to then compare the family fingerprints side by side. 10) Analyze and see if the fingerprints share similarities in shape, patterns, or lines.</p>	<p><b>Q4: Interpretation &amp; Conclusions</b></p> <p>From my project I learned that our fingerprints can be similar to our biological parents, but they may also be similar to our same gender cousin. This is because females and males are both more likely to have specific fingerprint patterns.</p>	

