

Fingerprint Patterns Being Genetically Inherited Through Biological Relations

Wilbert, Riley (School: Hilton Head Preparatory School)

Have you ever wondered where your fingerprints come from? The purpose of this project was to determine if fingerprints are genetically inherited through biological factors or relations and or, the prints being passed down through familial generations. The hypothesis that was investigated was if an offspring's fingerprint pattern is similar to that of his/her parent, then fingerprint pattern trends are genetically inherited through biological generations. All of the 5 fingerprints on the right hand were collected and placed on the fingerprint cards in the designated named boxes for each of the thumb, index finger, middle finger, ring finger, and little finger. Each of the fingerprints were observed individually. With the information of the fingerprint patterns, the fingerprints were then compared with different participants within their biological family and also no known relation. After finishing the project, it was concluded that the data did support my hypothesis. The data tables showed that the amount of fingerprint variation was relatively low and that within each familial relation, there was a dominant average similarity pattern present. With the hypothesis being supported, it was shown that there will not be a 100% average similarity within each family, but a dominant significant average similarity all above 64%, meaning there was a main dominant fingerprint pattern. Some biases include, only using the right hands fingerprints for testing. The overall data supported that fingerprint patterns are passed down through familial generations.