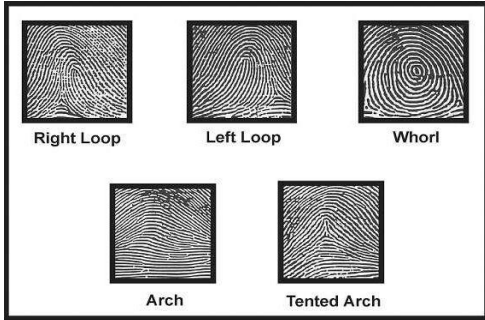


Fingerprint Analysis

From Home Science Tools | www.homesciencetools.com



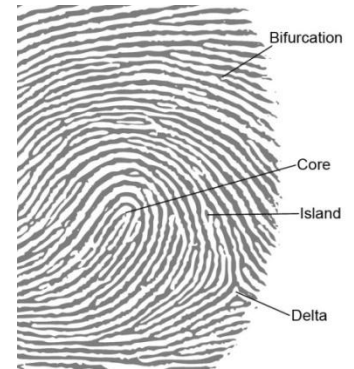
© Electrical and Computer Engineering Department, Biometrics Lab, UAH.

Each person in the world has a set of fingerprints unique to them! Even though every print is different, they can be categorized into one of three general types:

- loops** (found in 65% of the population)
- whorls** (found in 35% of the population)
- arches** (found in 5% of the population)

Analyzing fingerprints can be a tricky business, especially without computers to help. After categorizing a print as a loop, whorl, or arch, look for these individual features:

- **core:** in a loop fingerprint, this is the center of the loop.
- **delta:** in loop and whorl patterns, this is an area where ridges meet from three directions. (There is usually one delta on a loop and two or more on a whorl).
- **ridge end:** notice where individual ridges come to an end.
- **bifurcation:** notice where a ridge divides into two ridges (like a fork in a road).
- **island:** notice any short ridges cut off from others.
- **crossover:** notice where any ridges appear to cross over each other.



Try your hand at fingerprint analysis! Two different fingerprints have been found at a crime scene. Compare them to the fingerprints of the 4 suspects:

1. Use a magnifying glass to carefully compare the prints.
2. First list what type it is (loop, whorl or arch).
3. Then locate a central feature on each print (such as core or delta).
4. Try to identify **at least 10 individual features** in identical locations to find a match.

Suspect #1:	Suspect #2:	Suspect #3:	Suspect #4:
Crime Scene #1:		Crime Scene #2:	
Identity:		Identity:	