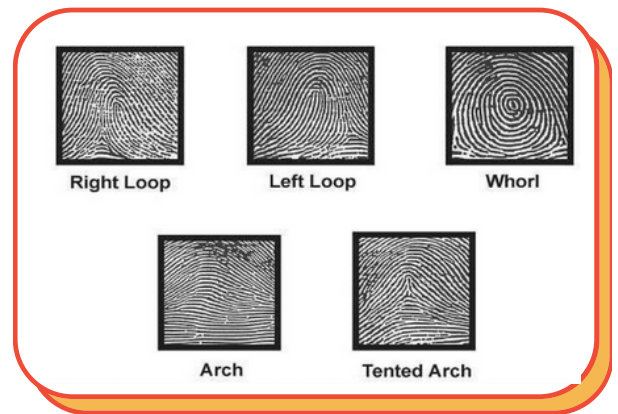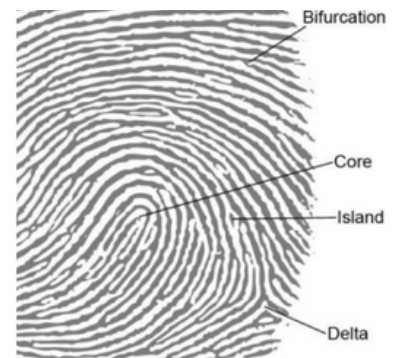# Fingerprint Analysis

Each person 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)

Right Loop   Left Loop   Whorl

Arch   Tented Arch

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.
- **island**: notice any short ridges cut off from others.

- **bifurcation**: notice where a ridge divides into two ridges (like a fork in a road).
- **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:.

| Suspect #1: | Suspect #2: | Suspect #3: | Suspect #4: |

| Crime Scene #1: | Crime Scene #2: |
| Identity: | Identity: |

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.