



# Fingerprints

Name: \_\_\_\_\_

## 1. Fingerprint Principles

According to criminal investigators, fingerprints follow 3 fundamental principles:

1. A fingerprint is an \_\_\_\_\_ characteristic; no two people have been found with the \_\_\_\_\_ same fingerprint pattern.
2. A fingerprint pattern will remain \_\_\_\_\_ for the \_\_\_\_\_ of an individual.
3. Fingerprints have general characteristic \_\_\_\_\_ patterns that allow them to be systematically identified.

## 2. Fingerprint Classes

There are 3 specific classes for all fingerprints based upon their visual \_\_\_\_\_: arches, loops, and whorls. Each group is divided into smaller groups as seen in the list below.

\_\_\_\_\_ Plain  
Tented

\_\_\_\_\_ Radial  
Ulnar

\_\_\_\_\_ Plain  
Central pocket  
Double loop  
Accidental

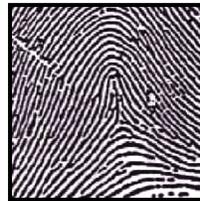
Loops = _____%
Whorls = _____%
Arches = _____%

## 3. Examples

**Arches** are the simplest type of fingerprints that are formed by ridges that enter on one \_\_\_\_\_ of the print and exit on the \_\_\_\_\_. No \_\_\_\_\_ are present.



\_\_\_\_\_ **Arch**  
Ridges enter on one side and exit on the other side.



\_\_\_\_\_ **Arches**  
Similar to the plain arch, but has a spike in the center.

**Loops** must have one \_\_\_\_\_ and one or more \_\_\_\_\_ that enter and leave on the same side. These patterns are named for their positions related to the \_\_\_\_\_ and \_\_\_\_\_ bones.

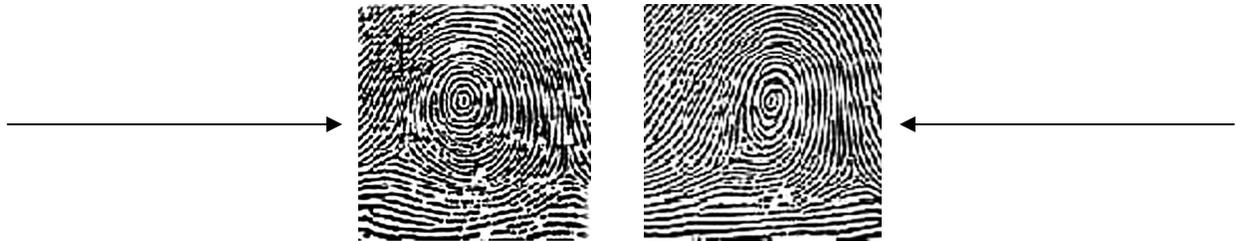
\_\_\_\_\_ **Loop**  
Loop opens toward the thumb or radius bone on the right hand.



\_\_\_\_\_ **Loop**  
Loop opens toward the little finger or the ulna bone on the right hand.

**Whorls** have at least one \_\_\_\_\_ that makes (or tends to make) a complete \_\_\_\_\_. They also have at least \_\_\_\_\_ deltas. If a print has more than two deltas, it is most likely an \_\_\_\_\_.

Draw a line between the two deltas in the plain and central pocket whorls shown below. If some of the curved ridges touch the line, it is a plain whorl. If none of the center core touches the line, it is a central pocket whorl. Label each fingerprint below.



\_\_\_\_\_ whorls are made up of any two loops combined into one print.



\_\_\_\_\_ whorls contain two or more patterns (not including the plain arch), or does not clearly fall under any of the other categories.

**4. Identify each fingerprint pattern shown on the class notes.**

- A. \_\_\_\_\_ C. \_\_\_\_\_ D. \_\_\_\_\_  
 B. \_\_\_\_\_ E. \_\_\_\_\_

**5. Follow your teacher's directions to document your fingerprints on the My Prints worksheet. Use your notes and a magnifying glass to identify the pattern in each one.**

