

# Fingerprints 101

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









1. According to criminal investigators, fingerprints follow 3 fundamental principles:

- A fingerprint is an \_\_\_\_\_ characteristic; no two people have been found with the \_\_\_\_\_ same fingerprint structure.
- A fingerprint pattern will remain \_\_\_\_\_ for the \_\_\_\_\_ of an individual. However, the print itself may change due to permanent \_\_\_\_\_ and diseases.
- Fingerprints have general characteristic \_\_\_\_\_ patterns that allow them to be identified and matched to a specific individual.



2. What are the 2 parts of a fingerprint? \_\_\_\_\_

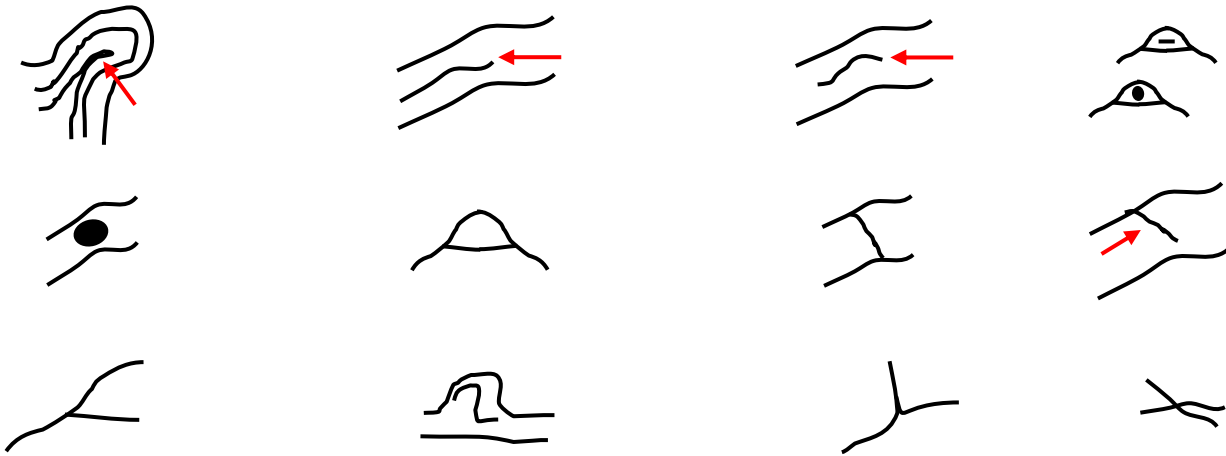
3. **Fingerprint Classification** - Used a COLORED PEN to show the pattern structures as shown on the notes.

<p style="text-align: center;"><b>Arches</b></p> <p style="text-align: center;">Ridges enter on one side &amp; exit on the other side.</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <p>_____</p> <p>_____</p> </div> <p style="text-align: center;">Arch                      Arch</p>	<p style="text-align: center;"><b>Whorls</b></p> <p style="text-align: center;">Consists of circles, more than one loop, or a mixture of pattern types</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <p>_____</p> <p>_____</p> </div> <p style="text-align: center;">Whorl                      Whorl</p>
<p style="text-align: center;"><b>Loops</b></p> <p style="text-align: center;">Ridges enter on one side &amp; exit on the same side</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <p>L - _____ Loop</p> <p>L - _____ Loop</p> <p>R - _____ Loop</p> <p>R - _____ Loop</p> </div>	<div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <p>_____</p> <p>_____</p> </div> <p style="text-align: center;">Whorl                      Whorl</p>

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

**Part B: Ridgeology**

1. The uniqueness of a fingerprint can be determined by analyzing its \_\_\_\_\_ and \_\_\_\_\_.
2. Fingerprints have \_\_\_\_\_ points, which are useful in matching a fingerprint to a specific \_\_\_\_\_.
3. Label each type of ridge structure.



4. Analyze the fingerprint to identify the class and then identify and label as many different ridge structures as possible you can.



**Ridge Challenge** - Identify five different ridge structures on your My Prints worksheet. Circle and label each one.