

The Basics of Fingerprinting

Guided Notes

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 pattern.

A fingerprint _____ will remain _____ for the _____ of an individual; however, the print itself may change due to permanent scars and skin diseases.

Fingerprints have general characteristic _____ patterns that allow them to be systematically identified.

2. There are 3 specific classes for all fingerprints based upon their visual pattern:

Plain arch
Tented arch

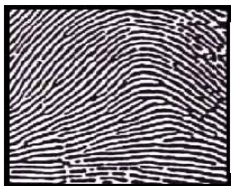
Radial Loop
Ulnar loop

Plain Whorl
Central pocket Whorl
Double Loop Whorl
Accidental

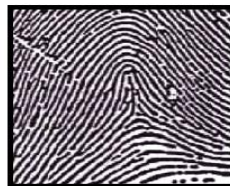
3. Fingerprint Factoid: _____% of people have loops, _____% have whorls, and _____% have arches

4. _____ is the study of fingerprint identification. Police investigators are experts in collecting "dactylograms", otherwise known as fingerprints

5. **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.



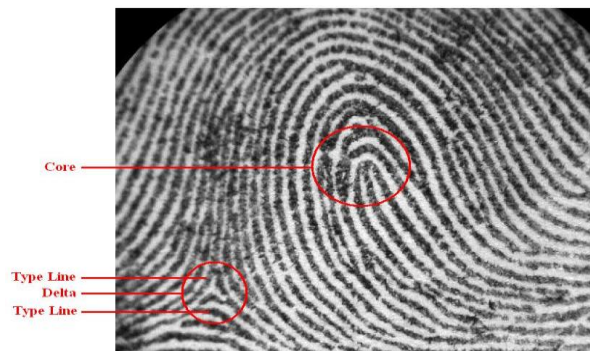
_____ **Arches**
Similar to the plain arch, but has a spike in the center.

6. **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.



7. **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 _____.

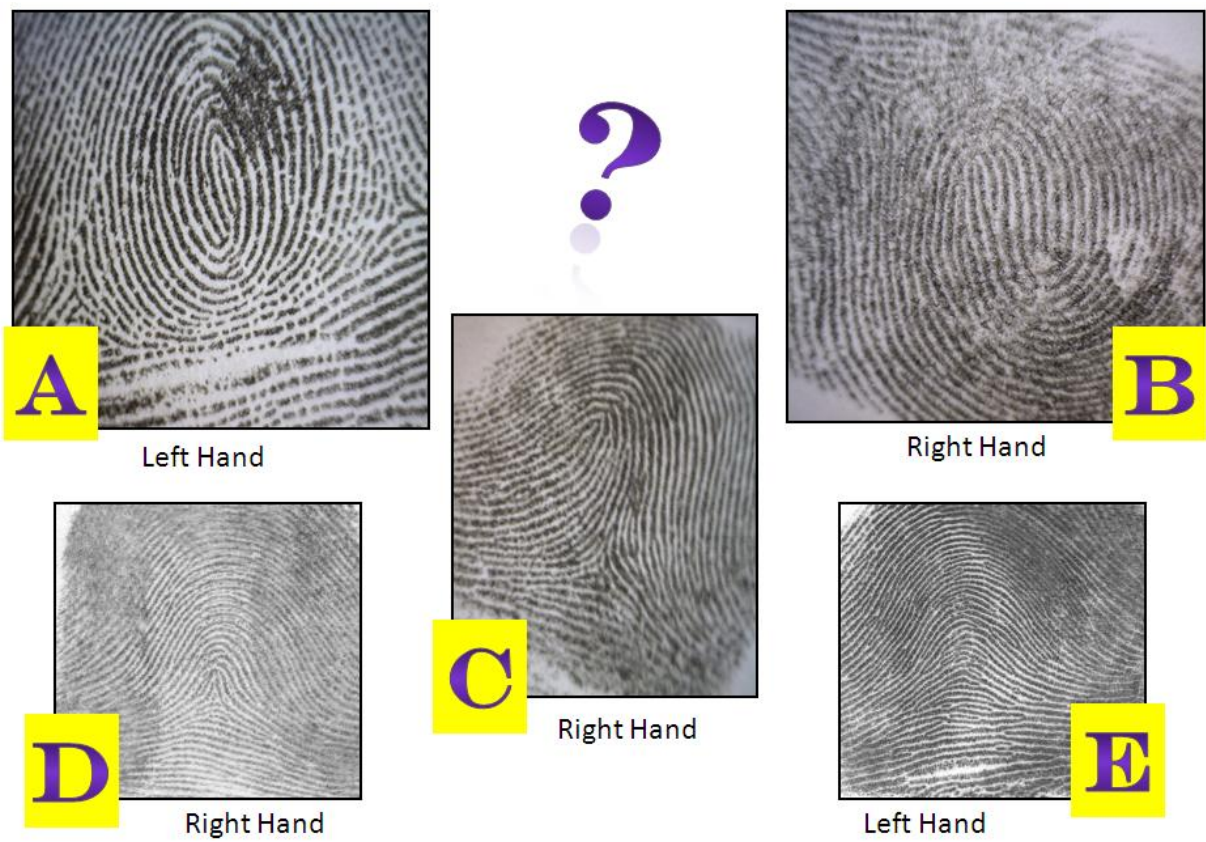
8. Draw a line between the two deltas in the plain and central pocket whorls shown below. If some of the curved ridges touch the line, it is a plain whorl. If none of the center core touches the line, it is a central pocket whorl. Label each fingerprint below.



_____ 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.



9. Identify each fingerprint pattern shown on the class notes.

A. _____ C. _____ D. _____
 B. _____ E. _____

10. _____ are made after coming in contact with colored material such as blood, paint, grease, or ink.

11. _____ are ridge impressions left on a soft material such as putty, wax, soap, or dust.

12. _____ are impressions left by friction ridge skin on a surface, such as a tool handle, glass, door, etc.

13. Prints may be collected by revealing them with a dusting of _____ and then lifted with a piece of _____.

14. What is the most common type of animal hair that is used to make brushes? _____

15. Some investigators use _____ powder and UV lights to help them find latent prints on multicolored or dark surfaces.

16. _____ powder can also be used to reveal latent prints. This type of powder works better on _____ surfaces or _____ baggies and containers.

17. The _____ fuming method (often called the super glue method) is a procedure that is used to develop latent fingerprints on a variety of objects.

Fingerprint Worksheet

Please identify the class of each of the provided fingerprints



a) _____



b) _____



c) _____



d) _____



e) _____



f) _____



a) _____



b) _____



c) _____



d) _____



e) _____



f) _____