

Fingerprint Worksheet – Answers

1. friction skin ridges found on the palm side of the fingers and thumbs.
2. Increase friction and improve grip
3. .
 1. A fingerprint is an individual characteristic; no two fingers have yet been found to possess identical ridge characteristics.
 2. A fingerprint will remain unchanged during an individual's lifetime.
 3. Fingerprints have general ridge patterns that permit them to be systematically classified.
4. Sweat and oil is constantly secreted on to the surface of finger ridges. When skin comes in contact with a surface, these fluids are left behind in the shape of a print.
5. Loops: Radial loop ;Ulnar loop
Arches: Plain; Tented
Whorls: Plain whorl; Central pocket loop; Double loop; Accidental
6. Automated Fingerprint Identification System
7. Visible-prints visible to the naked eye, Latent-invisible, Plastic-visible molded prints
8. Dusting-black powder adheres to sweat and oil left behind.
Iodine Fuming-Iodine fumes are absorbed by sweat and oil left behind.
Reacting with Ninhydrin-Ninhydrin reacts with the amino acid is oil to yield a purple substance.
Reacting with silver nitrate and UV-light-Silver nitrate reacts with the salt in sweat when exposed to UV-light to produce black silver chloride.
9. 150
10. 8 to 10
11. No two prints are identical
12. No. An individual's prints remain unchanged throughout their life time.
13. In order to remove prints one would have to penetrate 1 to 2 mm below the surface of the skin.
14. Yes, fumes can be created by heating the glue. The process is carried out by producing the fumes in an enclosed chamber with the object suspected of containing a fingerprint for up to six hours. The print becomes visible when fumes from the glue adhere to latent oils, usually producing a white-colored print
15. Loops, whorls, and arches. Sixty to sixty-five percent of the population has loops, thirty to thirty-five percent has whorls, and about five percent has arches
16. The use of advanced brushes and new chemical procedures make it possible to develop prints on a larger variety of surfaces. Some criminals wear gloves to avoid leaving fingerprints at a crime scene, but often they discard the gloves nearby. This is a picture of latent prints developed on the inside of a glove.