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Fingerprint and Trace Evidence Expert's Research Worksheet

Using the websites, answer the following questions as completely as possible.

Fingerprint Evidence

- 1. Give two reasons why fingerprint evidence might be better than DNA evidence.
- 2. Why might a person's fingerprints be on file?
- 3. What two basic principles do fingerprint evidence rest on?
- 4. How are fingerprints made?
- 5. How can experts make fingerprints visible?

# **Fingerprint Patterns**

- 1. List the nine different categories of fingerprints. (Some information will combine these into three main types arch, whorl, and loop).
- 2. Contrast each type of fingerprint pattern (i.e. list the main differences among each pattern).

# Biometric Patterns: About Fingerprints

1. List the eleven anatomic characteristics identified in this article.

\*\*Most experts require between 7-15 points of identification to make a positive identification.

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Fingerprint Analysis - This site is to show you how the anatomic characteristics can be identified in a fingerprint.

Crime Library: Trace Evidence

1. What is Locard's Principle of Contact?

## Hair Evidence Analysis

- 1. What type of evidence is hair considered and what can hair evidence not do?
- 2. What is the average number of samples taken from each person involved?
- 3. List some information that hair analysis can indicate.
- 4. Analysis of hair centers on what two aspects and how are they determined?
- 5. What three layers are included in the shaft?

# Hair Anatomy and Growth

1. How can you tell if a hair was shed naturally or pulled out?

# Human Hairs

- 1. Which hairs are usually the longest on the body?
- 2. Identify characteristics of hairs from different ethnicities.

