Backboard Information for Fingerprint Classification

No two fingerprints belonging to a single person are alike, and no two people share the same prints. Moreover, a person's prints are permanent throughout life; record them at birth and you'll be able to spot the same person when they die of old age. These facts have made fingerprinting an extremely important tool in crime detection. Since 1901, fingerprinting has been used as a method of positively identifying individuals. Because no two people have the same fingerprints, a good print can help solve a crime.

Fingerprints are impressions created by ridges on the skin. On the tips of fingers, on the palms of hands, and soles of feet, the skin has tiny ridges that provide traction to help grip things. Everyone has a unique pattern of skin ridges. These ridges form before a baby is born, and maintain their pattern throughout life. As you grow, the pattern gets larger but it does not change.

When a person touches an object, the perspiration, oils and amino acids on his or her skin is transferred to that object. Sometimes an impression of the ridge pattern in left in the deposit. The impression is called a fingerprint.

There are three categories of prints:

Patent prints which can be seen by just looking. Usually the person's hand was covered in something like ink, oil or blood.

Latent prints cannot be seen until they are enhanced with a powder or chemical reagent.

Impressed prints have been pressed into a soft material such a mud, snow or congealed blood.

All fingerprints can be divided into three pattern classes, loops, whorls and arches. 65% of the people have loop patterns, 30% have whorls and 5% have arches.

The FBI fingerprint classification system is based on the whorl.

A LESSON ON
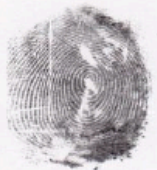# FINGERPRINT CLASSIFICATION
On the window frame at the scene of the crime you were able to lift some fingerprints. Your task is to classify the crime scene fingerprints and to classify your own fingerprints.

Procedure:

1. Use the classification chart and classify the crime scene fingerprints.
2. Lift your own prints using pencil and tape as demonstrated, and classify them as indicated.
3. The class tally and FBI fingerprint classification will be completed as a class.

Crime Scene Prints

Fingerprinting

Name:	Left Hand

thumb	index	middle	ring	baby

Fingerprint Classification

Fingerprints

Because your fingerprints never change and are different from everyone else's, they can be used to identify you. There are 3 different patterns of fingerprints, known as arches, whorls, and loops.

Plain Arch
The ridge lines enter on one side and curve up and exit on the other side.

Tented Arch
The ridge lines are the same as a plain arch, except that they make a sharp point or tent in the middle.

Whorls
The ridge lines are circles or ovals.

Loops
The ridge lines enter on one side of the print, curve, and exit on the same side. An ulnar loop slants toward the ulna bone in the wrist. A radial loop slants toward the radius bone in the wrist

Right-hand ulnar loop or left-hand radial loop.

Right-hand radial loop or left-hand ulnar loop.