

Fingerprinting Guide

Creating Latent Lifts

*Brought to you by the National Institute of Justice's
Forensic Technology Center of Excellence (FTCOE)*

Background

Fingerprints, palmprints, and even bare footprints can be found at crime scenes and are collectively referred to as latent prints. Often, these latent prints are preserved by powdering and lifting with an adhesive, like tape, resulting in a latent lift. These latent lifts can be analyzed by forensic professionals to determine if any of the prints present are of value for comparison purposes. If they are, they can be compared to known individuals' fingerprint standards for identification or elimination purposes or they may be entered into an Automated Fingerprint Identification System for potential identification.

In this activity, fingerprints will be deposited onto a smooth surface and powder will be used to subsequently develop fingerprints on the surface. Tape will be used to lift the developed fingerprints from the surface which will be smoothed onto a white backing card to preserve the fingerprints.

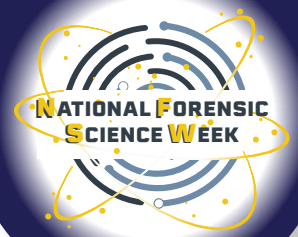
Supplies:

- Black fingerprint powder
- Fingerprint brush
- Flat and clean, nonporous surface such as metal or a glass windowpane
- Lifting tape (packing tape will work)
- Scissors
- Backing cards (unlined white index cards or white printer paper)
- Alcohol wipes or baby wipes
- Magnifying glass



Step-by-Step Instructions

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Step 1:

Touch the nonporous surface by gently resting the finger(s) on the surface for a few seconds. If hands are dry, sweep the finger to be deposited around hairline or behind ears, or use lotion to create residue on the surface of the hands.

Step 2:

Dip the fingerprint brush into the fingerprint powder. Tap off the excess powder into the container.

Step 3:

Gently sweep the fingerprint brush over the area that was touched until ridges are visible against the surface. Use repetitive motions in the same direction. Be careful not to over-powder!



Step 4:

Using scissors, cut off a piece of tape that is long enough to cover the fingerprint and at least an inch on either side. Stretching out the tape in a steady motion without stopping will minimize the appearance of lines in the tape.

Step 5:

Fold over the extreme edge of one side of the tape so that there is a non-sticky place to grasp the tape in the following step.

Step 6:

Visually gauge where the tape should go on the nonporous surface to ensure that the full fingerprint(s) will be centered on the tape once it is applied.

Step 7:

Gently affix the unfolded end of the tape to the surface beside the fingerprint. Then, smooth the rest of the tape over the surface, slowly, until the fingerprint is covered. Smooth out any air bubbles.



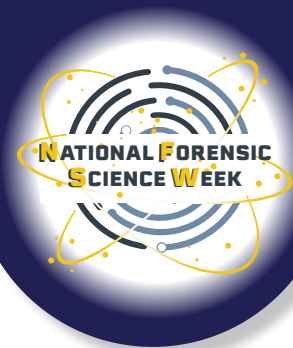
Step 8:

Grasping the end of the tape that was folded in Step 5, pull up the tape off the surface in one smooth and continuous motion.

Step 9:

Transfer the tape onto the backing card by affixing one end to the backing card and smoothing the rest of the tape down onto the surface of the backing card. Smooth out any air bubbles. You now have a latent lift! Examine the features of the lifted fingerprint(s) using a magnifying glass.





Step 10 (optional):

Repeat steps 1-9 with the following variations and discuss your findings:

- Try lifting prints from other surfaces (ideally ones that can be cleaned!).
- Attempt to lift more than one fingerprint at a time.
- Experiment using palmprints or bare footprints.
- Explore how varying the pressure when touching the surface affects the appearance of fingerprints.
- Examine the features of the lifted prints using a magnifying glass.



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