Figuring Out Fingerprints (Lifting Fingerprints)

Sections

Joey Scouts | Cub Scouts | **Scouts** | **Venturer Scouts** | **Rover Scouts**

Scouts VICTORIA

Last updated: May 13, 2023, 9:58 p.m.

Challenge Areas

COMMUNITY | CREATIVE | OUTDOOR | PERSONAL GROWTH

Scout Method Elements

COMMUNITY INVOLVEMENT | LEARNING BY DOING | NATURE AND THE OUTDOORS | PROMISE AND LAW | PERSONAL PROGRESSION | PATROL SYSTEM | SYMBOLIC FRAMEWORK | YOUTH LEADING, ADULTS SUPPORTING

SPICES Growth Areas

CHARACTER | EMOTIONAL | **INTELLECTUAL** | PHYSICAL | SOCIAL | SPIRITUAL

The Adventure

Take your forensics activity to the next level by lifting fingerprints for closer inspection.

Plan

1. Investigate fingerprint analysis, what it is and what are some of the underlying principles. Why can they be used to assist investigation of crimes? There is lots of information available on fingerprinting but this is a good starting point.
2. Investigate types of fingerprints by looking at the features of a fingerprint supplementary and how they can be collected, particularly looking into fingerprint lifting.
3. Investigate methods of collecting reference (known) fingerprints and fingerprint rolling.
4. Investigate why latent fingerprints (fingerprints which are invisible to the naked eye) are left on surfaces and if/how the surface affects the fingerprint.
5. Read the safety information and discuss with your leaders or another appropriate adult what safety equipment, precautions, and supervision may be required. Ensure that you have these safety measures in place before starting the 'Do' section.
6. Gather all the equipment that you need for your fingerprint analysis experience. You will need the following equipment: clear packing tape (the tape should be wider than a finger), scissors, mounting paper in a colour that contrasts the fingerprint.

Do

1. Ensure that the fingerprint that you are wanting to lift is visible and developed using a transferable material, such as a powder. For ideas on developing fingerprints, you may like to have a look at the Figuring Out Fingerprints (Superglue Fuming) and/or Figuring Out Fingerprints (Dusting for Fingerprints).
2. Cut a section of clear packing taping ensuring that there is enough area to cover the entire print. Make sure that you are handling the tape carefully to prevent excess fingerprints contaminating the tape.
3. Fold over a small section of the tape to create a handle that will not stick to the surface with the print or collect excess prints.
4. Carefully place the tape sticky side down over the fingerprint, making sure not to smudge the print.
5. Using the tab that was created in Step 3, lift the tape up, taking the print with it.
6. Place the tape down on the mounting paper making sure that the paper contrasts well with the print. For instance, if you have dusted with a white powder, you will want to mount it on black paper.
7. Make sure to label your prints so you know where they were taken from.
8. Inspect the print and see if you can identify features and characteristics.

Review

1. Were you able to successfully lift the fingerprint?
2. What could you do that you think would improve the lifting and/or visualisation of the fingerprint?
3. What did you enjoy most about in lifting the fingerprints? What did you learn?
4. Do you think the surface that the fingerprint is deposited onto will affect your ability to lift the fingerprint? Why or why not?
5. Do you think you can develop or lift a print using just the tape (no powder or development)? Why or why not?

Safety

- Sharps warning: Scissors are used in this challenge card. Take care to avoid cuts.

Variations

- This challenge card can pair well with other forensic science-based challenge cards such as other challenge cards in the 'Figuring Out Fingerprints' series, Who Wrote It? Paper Chromatography, and Soil pH Testing, to create a forensics program or a 'Whodunit' night.
- If running as a 'Whodunit' night, you may wish to create some sets of reference fingerprints – see Figuring Out Fingerprints (Rolling fingerprints) – to compare to the lifted prints.
- Investigate how different methods of fingerprint development affect your ability to lift prints.
- Depending on the section, you can increase the difficulty of this activity by looking at different amounts of fingerprint characteristics.
- Depending on the section and challenge area used, this challenge card can also be paired with a police station visit or some other law enforcement related community involvement.