

# Figuring Out Fingerprints (Rolling Fingerprints)

## Sections



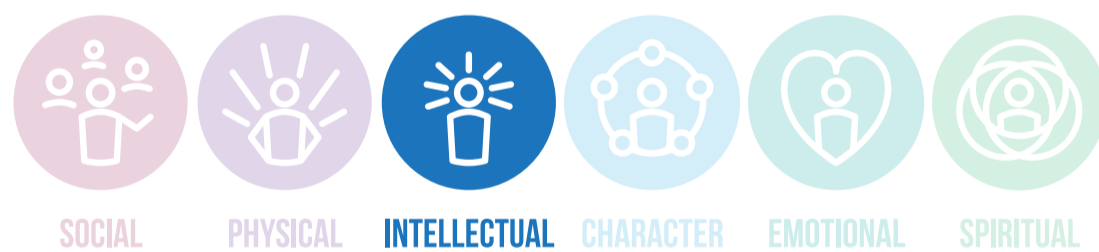
## Challenge Areas



## Scout Method Elements



## SPICES Growth Areas



# The Adventure

Take a dive into the world of forensic science and learn about fingerprint analysis by collecting your own fingerprints and making a fingerprint card.

## 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 you may like to start here:  
<https://www.azolifesciences.com/article/Fingerprint-Analysis-in-Forensic-Science.aspx#:~:text=Analyzing%20fingerprints%20left%20at%20the,%2C%20parole%2C%20and%20other%20details.>
2. Investigate types of fingerprints and how they can be collected.
3. Investigate methods of collecting reference (known) fingerprints and fingerprint rolling.
4. 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.
5. Gather all the equipment that you need to make your fingerprint analysis experience. You will need the following equipment: an ink pad (ideally black), and fingerprint cards and/or white paper.

## Do

1. Fill in your details at the top of the prints card.
2. Wash your hands to remove any dirt and debris that may impact the fingerprint, before drying your hands thoroughly.
3. Gently press a finger into the ink pad to cover your finger in ink. You will want to cover down to around the end of the first segment of your finger. Do not press your finger too deeply into the ink pad to prevent getting too much ink on your finger.
4. Roll your inked finger onto the appropriate section of the fingerprint card. You want to gently roll your finger from the 'most awkward' side to the 'least awkward' side when holding your hand. Try to relax and do not put too much pressure when rolling your prints as this can make them harder to view later.
5. Repeat Steps 2 and 3 until you have rolled prints of all your fingers.
6. Gently press all four fingers of one hand onto the ink pad and then gently press your fingers onto the corresponding four fingers section. You do not want to roll your fingers for these prints. For best prints, you will want to position your hand at about a 45-degree angle to the card.
7. Repeat Step 6 for the other hand and both thumbs.
8. All the ink to dry.
9. Wash your hands thoroughly with soap. The ink may take some time to remove from your fingers but will be thoroughly removed within a maximum of a few days.
10. Examine your fingerprints. What features can you see in each print? What type of print is each finger?

## Review

1. Were you able to successfully roll your prints in a way that they can be analysed? Can you see ridges and details?
2. What could you do differently to improve the prints that you collected?
3. What other ways do you think you could collect reference fingerprints?
4. What did you enjoy most about collecting your fingerprints through this method? What did you learn?

## Safety

- Fingerprints are unique to each individual and can therefore be considered identifying information. For privacy reasons, youth members should either take home their fingerprint sheets or used fingerprint sheets should be destroyed after use.

## 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.
- Depending on the section, youth members may require assistance in rolling their prints.
- 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.