



FINGERPRINT COMPARISON



OBJECTIVES

Students will...

- Gain an understanding of the unique qualities of fingerprints
- Be able to identify different types of fingerprints



MATERIALS

- Clear cellophane tape
- Pencil
- Scratch paper
- 8½" x 11" white paper
- Magnifying Glass (SB16444)
- Nasco Fingerprint Poster Set, 3 posters (SB42117)
- Wet wipes or soap and water (for cleanup)



ACTIVITY

- Have each student trace around both their hands on the 8½" x 11" white paper.
- Have each student rub the flat side of their pencil lead onto the scratch paper, creating a dark spot about 1" in diameter.
- Rub one finger on the dark spot, transferring the graphite to the flat part of the fingertip.
- Carefully cover the end of the graphite covered fingertip with the clear cellophane tape. Transfer the tape to the correct finger on the hand outline. Repeat the process until 10 fingerprints have been transferred to the hand outline.
- Examine the prints with a magnifying glass. Students compare their fingerprints to the fingerprint posters, then label each fingerprint as a loop, arch, or whorl. If a student can't tell which kind of fingerprint they have, or the tape is smudged, repeat the process with a new piece of tape. Students should compare their fingerprints with those of their classmates.



DISCUSSION

- How are the fingerprints alike?
- How are they different?
- Do the students notice any patterns in their fingerprints?
- Does each person have loops, arches, and whorls or not?



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FINGERPRINTING SUPPLIES

The perfect accessories for properly documenting fingerprints for forensic experiments.

Plastic Fingerprint Ink. Considered “inkless,” this pad leaves a crisp, clear imprint, never smears, dries instantly, and leaves no ink on fingers. Specially formulated ink does not dry out if pad is left open. 1,200 imprints per pad.
SB49300

Dark Ink Fingerprint Pad. Dark ink gives a very clear, crisp imprint and leaves very little residue on fingers. Dries instantly and does not smear.
SB49301

Applicant Record Cards. Accepted by law enforcement agencies as a fingerprint record card and also used for employee applications by schools, banks, hospitals, security agencies, and more. Pkg. of 100 cards. Printed in process blue on 110-lb. index card stock.
SB49304



WHOSE FINGERPRINTS WERE LEFT BEHIND? EXPERIMENT KIT

Use latent prints and a UV light source in a “whodunit” activity. Required but not included: alcohol, UV long wave light source (mineral light), safety goggles, and a towel or washcloth. 50 minutes. For 10 lab groups.

SB39287



CRIME SCENE BARRICADE TAPE

Highly visible barrier tape is effective for use in crowd control, protecting crime scenes, and keeping out the curious at accident sites, crime scenes, or hazardous areas. Yellow tape with black lettering is 3" wide. Roll is 1,000 feet and comes in a heavy-duty dispenser box.

SB49303



SEL POWER-UP REFLECTION

Suggested questions for an SEL-focused discussion after you finish your creations.

GROUP REFLECTION:

1. When you think about fingerprinting, what comes to mind? Why do you think you associate those ideas with your fingerprints?
2. What kinds of behavior results in looking for finger printing?
3. What could having your fingerprints in a database mean? Does it make you nervous to have a record of your prints somewhere? Why?
4. What qualities about yourself (physical and emotional) are unique?
5. Is it possible to leave your “prints” behind in other ways than touching objects?
6. How can you see your imprint on things and people around you?
7. Currently biometrics (like fingerprints) are being used to access phones, room, and other things. Do you think we should be using biometrics for this purpose or no? Why?

SELF-REFLECTION:

1. Did I take reading my fingerprints seriously and try my best?
2. How did I feel as I worked on this project?
3. What role does science play in my life?

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