

Fingerprint Basics - Directions

Task 1: Inked Prints

Materials: fingerprinting pad, identification cards, magnifying glass

Procedure:

1. On an index card, practice [rolling your lab partner's prints](#).
2. Cover your partner's finger with a thin coat of ink from the crease of the first knuckle to the very top.
3. When rolling onto the paper, make one pass in a smooth, even motion. Roll nail bed to nail bed. Do not roll back and forth.
4. When you become comfortable with your technique, fill out the identification card. Roll a full set of prints- wash your hands before beginning the final version.
5. Using your own print, classify them into major classes (loops, arch, whorl)

Task 2: Balloon Prints

Materials: White latex balloons, fingerprinting pad

Procedure:

1. *Partially* inflate a balloon. Do not tie it off.
2. Open the fingerprint pad and gently roll on fingertip.
3. Apply fingerprint to balloon surface, being careful not to smudge or twist while lifting the finger from the balloon surface...you may have to do this more than once.
4. Now inflate the balloon more fully and tie it off.
5. Use a marker to circle each ridge characteristic you find within your print and indicate these ridge characteristics on your "My Prints" sheet.
6. Be sure to indicate which hand and finger you printed.

Task 3: Developing Latent Fingerprints

Materials: black fingerprint powder, fiberglass fingerprinting brush, microscope slide, clear tape, index card

Procedure:

1. Rub your fingers through your hair, on your forehead or behind your ear to pick up oils
2. Apply a fingerprint to your slide.
3. Apply fingerprint powder with a fiberglass brush. Tap the brush against the edge to remove any excess powder. You do not need much!!
4. Using a circular pattern, swirl the brush over the print. The bristles should just graze the surface of the object. The print should begin to appear. Do not brush the powder over the fingerprint or you will smear the print.
5. It may take several tries to produce quality prints.
6. Lift prints with transparent tape and apply to a note card.

Task 4: Matching Prints

Materials: Identification cards from everyone in your group, one latent fingerprint lift

Procedure:

1. Exchange ID cards of all group members and ONE latent print with another group.
2. Classify the latent print that you receive into one of the major groups (loops, arches, whorls) and describe minutiae.
3. Attempt to determine who the latent print belongs to. Label at least *5 points of comparison* between the latent print and the print of interest on the person's ID card.

Group Members ID cards used:

Whose print do you think it is? _____

How many ridge characteristics could you match? _____

Check with the group; were you correct? _____

OPTIONAL IF TIME ALLOWS:

Task 5: Fingerprint Crossword

Procedure: Use your notes to complete the crossword puzzle and staple it to this sheet when you are finished.

*Answers to help you: **Across:** 6. ridgeology **Down:** 4. dactylograms 9. kaola