

Fingerprints

In this activity, you will learn about the four different fingerprint patterns a person can have, and why we leave them behind. You will also analyze your own prints to see what patterns you have!

You will need:

- White blank paper
- Clean dry hands
- A dark-coloured washable marker or ink pad
- A magnifying glass if you have one- a phone camera will also work!

Background Intel

- **What are fingerprints?** Fingerprints refer to the tiny lines known as friction ridges on the tip of each finger. They are formed in the womb and are fully developed at 24 weeks.
- **Why do we leave them behind when we touch things?** Each ridge builds up sweat and oil, which are the substances that actually leave marks on anything that is touched. This comes from the pores that are in the skin.
- **There are 4 main patterns:**



Loop



Whorl



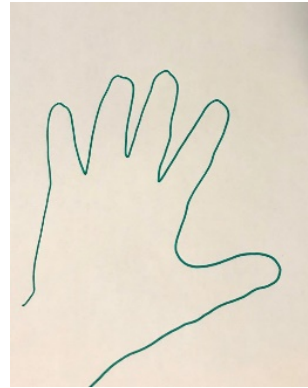
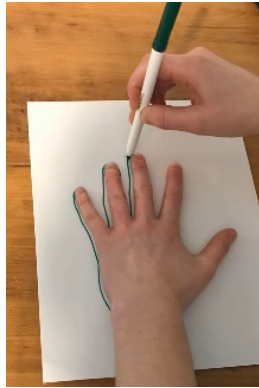
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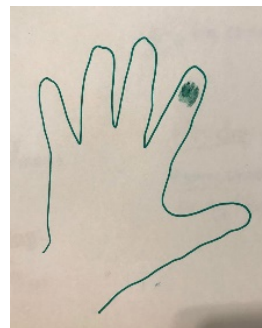
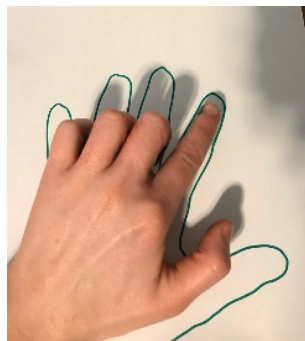
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Activity – Stamping your prints

1. Place a piece of white paper on a flat surface and place your non-writing hand flat on the paper, with your fingers spread out. With a washable marker, trace the outline of your hand.

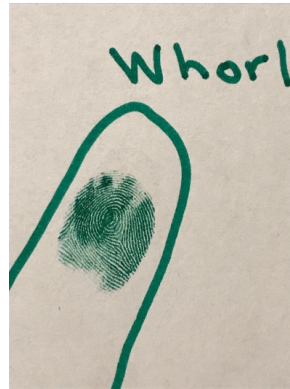
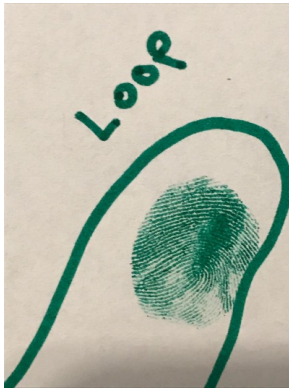


2. With your washable marker, colour the flat part of your finger tip, starting just below your nail, and continue down to the first knuckle joint, or put the tip of your finger flat on an ink pad. Colour one finger at a time.
3. Once your finger tip is coloured, very gently press your finger on the same finger on your traced out hand (ie: if you colour your thumb, place it on the thumb spot on your paper). **If you push too hard, your print may turn out blurry!** Try practicing on a separate piece of paper to see what your prints look like before placing them on the traced hand.
4. Repeat step 3 with each of your fingers.



Activity – Analyzing your prints

1. Using the photos in the Background Intel, now it is time for you to analyze your prints to determine what patterns of fingerprints you have!
2. If you cannot see your print pattern just by looking at the paper, try using a magnifying glass, or take a picture of your print on a phone and zoom in. Use your marker to label each of your finger prints!



Activity- Optional Fingerprint Challenge

- Try something different- fingerprinting with balloons! Follow the same instructions as the previous activity, however only colour or ink on ONE finger.
- Now instead of using paper, place your coloured finger very gently on a deflated balloon. Make sure this balloon is not folded, creased or wrinkled. Let the print dry for 30 seconds. Blow the balloon up and tie it to see your enlarged fingerprint!

Where to learn more!

If you would like to learn more about fingerprints and some interesting facts about them, check out the video links below!

- **Video link:** <https://www.youtube.com/watch?v=5-OI95dpNSM>
- **Video link:** <https://www.youtube.com/watch?v=qX6hFXHDmk4>