

Activity Name: What Type of Fingerprint Are You?

Activity Description: Students will use an ink pad and an index card to record their own fingerprint. They will then classify the fingerprint to find out exactly what type of print they have. Students will also explore, make inferences, and observations about fingerprints of identical twins.

Suggested Grade Level / Age Range: Kindergarten-Fourth grade

Science Content Covered (just provide keywords - *example - heat, light, energy*): fingerprinting

Time needed to complete the activity: 10 minutes

Materials Required (per student): index card, one inkpad

Directions as well as Activity Success Tips for Parents and Teachers:

1. Have student/child place their thumb on the ink pad (preferably black), pressing down slightly so that ink covers the entire thumb fingertip.
2. Immediately after lifting the thumb from the ink pad place fingertip on an index card, being careful to keep thumb in its original place.
3. Lift thumb straight off of index card to reveal the thumbprint.
4. Then look at the print that was created on the index card and compare it to pictures of the three main types of fingerprints: loop, whorl, and arch.
5. Figure out which picture best matches to conclude what kind of fingerprint was created!

* This process can be repeated for any or all of the fingers to create a whole set of fingerprints.

Success Tips:

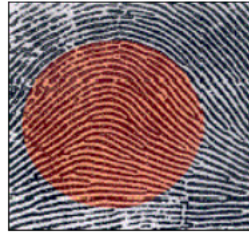
1. Pressing down too hard on the ink pad, resulting in a lot of ink, could hinder the outcome of the print as the ink will fill in the ridgelines of the print instead of defining them.
2. Rolling or sliding the fingertip around once placed on the index card could make a print that is not clearly defined as well.

Insert Any Images / Photos / Drawings needed to help describe or explain the activity:



WHORL

In a whorl pattern, the ridges are usually circular.



ARCH

In an arch pattern the ridges enter from one side, make a rise in the center and exit generally on the opposite side.



LOOP

In a loop pattern, the ridges enter from either side, re-curve and pass out or tend to pass out the same side they entered.

Possible follow-up, extension activities or ideas for children and parents to explore (with references or urls):

- This activity could be combined with children learning about how fingerprints are used in the real world. For example, how law enforcement uses them to solve crimes, and what jobs require their employees to be fingerprinted.

http://hubpages.com/hub/All_About_Fingerprints

http://hubpages.com/hub/Fingerprint_Science_Project_for_Kids

- Have a group of children complete this activity together to see how each individual's prints compare to the others.

- Parents could show their children feet/foot prints from when they were first born and compare them to the ones that they just created, pointing out how their fingerprint never changes.

Safety comments / considerations:

- This project does involve ink which can stain clothes, so be sure to wear appropriate attire and have baby wipes or a sink to wash hands immediately after the project is completed.

If your activity should be credited to any specific source or citation - indicate that here: