

Children's University Club Challenge



Fantastic Fingerprints!

Fingerprints are the impressions left by the tiny ridges of skin on your fingers. These ridges help us feel things and grip objects. No two people have identical fingerprints, but fingerprint patterns tend to run in families. I wonder if you can spot any patterns in your family's fingerprints? These patterns often look like whirls, loops, or arches. When you touch a surface, your fingers leave prints of sweat and oil behind. Sometimes, the police use these unique prints left at many crime scenes, to identify who has been there. The scientific study of fingerprints is called dermatoglyphics ('derma' means skin and 'glyphics' means carving). This challenge helps you to create some finger prints to look at.

You will need:

- white paper
- clear tape
- a pencil
- a clear glass or jar
- cocoa powder
- a paintbrush or makeup brush



Step 1: Draw round your hand on a sheet of paper. Scribble hard with pencil on another piece of paper then rub your first finger around in the graphite (the pencil scribbling) until it is covered with grey.

Step 2: Place your pencilled finger onto the sticky side of a piece of sticky tape, then lift it off again. You should notice some of the pencil has been left on the tape. A clear fingerprint should be visible.

Step 3: Stick the piece of tape onto the same finger on the hand you drew round on a sheet of white paper.

Step 4: Repeat this with all of your fingers until you have a complete hand. Repeat with your other hand so you have a full set of finger prints.



Step 5: Have a close look at your finger prints - how are they similar? How are they different? Compare them to other members of your family and look for similarities.

If you want to collect your finger prints like the Police, have a go at this activity, with the help of an adult:

Step 6: Rub your hands together then press your fingers onto some clean, clear glass (a jam jar or a window or even a mirror will work well).

Step 7: Using a brush, very gently dust some cocoa powder onto one of the fingerprints on the glass then blow the excess cocoa powder away. Stick some sticky tape to the finger print then pull it off carefully before sticking it to some plain white paper. It may take some practice! Try to match it to one of the fingerprints from the first part of the challenge. Can you figure out which finger it came from? You could try this as a game with other members of your family leaving prints and asking an adult to work out whose prints they were!

1 CU Credit for completing this challenge. To claim your credits, please complete your CU Club Reflection Diary and return to your school along with your work.