

LIFTING FINGERPRINTS

OVERVIEW

In this activity, you'll find out how to lift a fingerprint from the surface of a glass jar.

Fingerprints are one of the most unique parts of an individual. In fact, no two people have exactly the same fingerprints, not even identical twins!

The unique patterns of fingerprints are made by the pattern of friction ridges (raised skin) and furrows (recessed skin) on the pads of your fingers and thumbs. Each time you touch an object, you leave behind fingerprints. The uniqueness of a fingerprint makes this a critical piece of evidence in a crime scene.



DID YOU KNOW?

Police have been using fingerprint analysis to identify suspects and solve crimes for more than 100 years.

MATERIALS

- Cocoa powder
- White index card (or A4 piece of paper)
- Pencil
- Clear sticky tape
- Small, soft paintbrush
- Drinking glass or jar
- Hand lotion
- Plate
- Magnifying glass



WATCH THE VIDEO LINK



IDEAL FOR 8-10 YEARS



ADULT ASSISTANCE RECOMMENDED

METHOD

1. Locate a clear drinking glass or jar with a visible fingerprint on the glass.
2. Alternatively, you can place your own fingerprint on a glass surface!
To do this:
 - a. Choose the finger for printing (thumb is easiest) then either:
 - i. Wipe finger over oily parts of your body such as forehead, scalp or side of nose, or
 - ii. Rub a light hand lotion along your finger, remembering to wipe away any excess lotion.
 - b. Firmly press the finger or thumb on a clear smooth glass surface.
 - c. Lift the finger off slowly and in one direction.
3. Slowly and gently, dust a thin layer of cocoa powder using a soft paintbrush.
4. Gently tap or softly brush the excess dusting powder off the glass surface.
5. Cut a small piece of clear sticky tape and carefully place over the dusted fingerprint.
6. Lift the tape off the glass slowly and stick it onto the piece of white index card or paper.
7. Now you have lifted your fingerprint off the glass jar.
8. Use the magnifying glass to take a closer look.



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FOR DISCUSSION

What patterns can you see in your fingerprint?

You should be able to see a clear pattern of lines. If you have a magnifying glass (or maybe use the magnification function on a mobile phone camera) you'll be able to take a closer look. The patterns you see generally fall into one of three categories: arch, loop or whorl.

What pattern does your fingerprint have?



ARCH



LOOP



WHORL

Are the patterns on your fingers all the same or different?

You can test this out by lifting prints from different fingers from a glass surface. Expect to see different patterns for each finger.

Do you have the same fingerprints as your sibling?

No, all fingerprints are unique. Your fingerprints will not be the same as your sibling or your parents.

WANT TO DO MORE?

Try out the other fingerprint activities in this series: '[Fingerprint fuming](#)' and '[Fingerprint patterns](#)'.