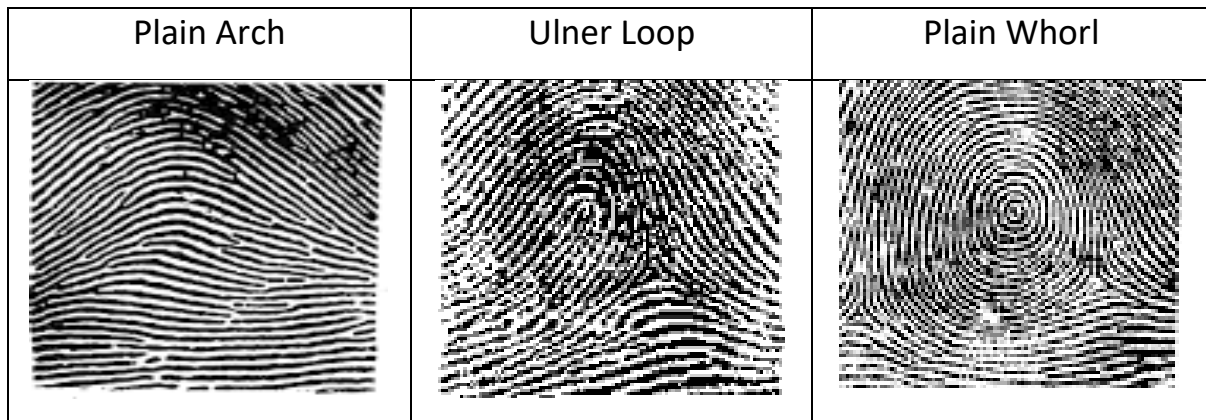


## CSI: Playing the role of a Detective

I am sure you have heard that detectives use fingerprints to solve crimes. Did you know that fingerprints are one of the best and easiest ways to identify a person! Why not try out the following activity with your family at home!

### Interesting facts:







- Fingers have slightly raised lines that form patterns, and every finger has its own unique pattern
- Natural oils from the skin are left behind when a person touches something, leaving a fingerprint pattern. Forensic (detective) scientists study fingerprint patterns to match them to a particular person
- There are three basic types of fingerprint patterns. The three basic patterns are called Plain Arch, Ulnar Loop, and Plain Whorl.



In this activity, you'll find a new way to enlarge your prints at home. You will also learn how to gather prints like a real detective!!

**Activity: Gathering, lifting and analysing fingerprints**

**Equipment:**

Balloon	Marker	Baking Powder
		
Sieve and Glass Plate	Sticky Tape	Coloured Paper
		

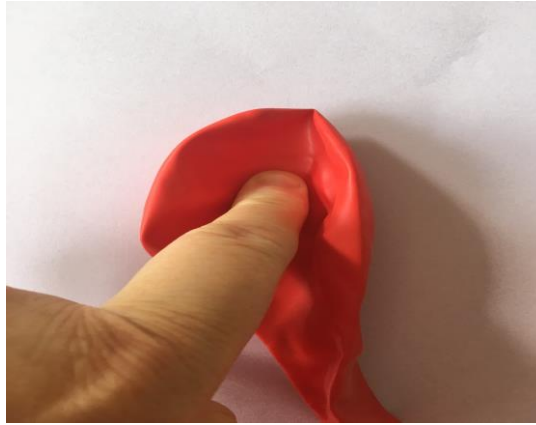
**Method:**

**Part I: Ballooning Prints**

1. Choose a finger. Gently colour your finger using the marker



2. Press your inked finger straight down onto the balloon. Tip: Don't slide it around or the print will smear!



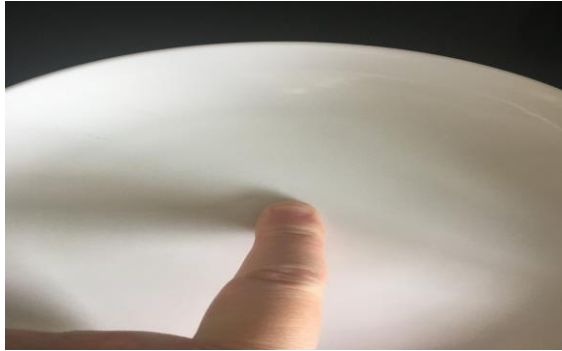
3. Wait a few minutes for the first print to dry. Then repeat steps 1 and 2 with a different finger and make another print on a clean part of the balloon
4. Blow up the balloon slightly so the prints get larger. Tip: If they look blurry, let out some air until they are clearer



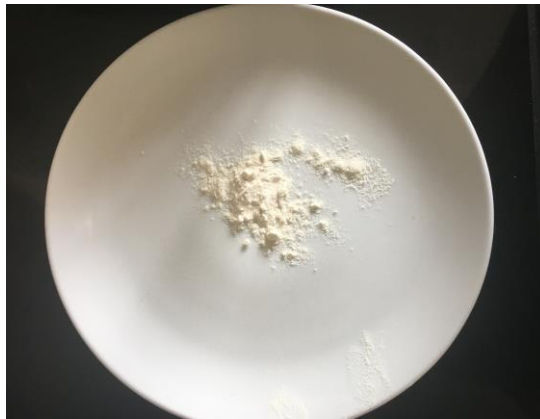
5. Compare your prints to the patterns in the photo on page 1. Do you have a loop, arch or whorl at the centre of your finger print? Are both prints the same? Compare your family member's finger prints to yours!

## Extended Activity: Part II: Lifting (Gathering) Fingerprints

6. Place your finger tip firmly on the plate



7. Using the sieve, slowly dust a thin layer of baking powder over the surface containing your prints



8. Tilt the plate and gently tap it to remove extra powder.

Tip: You can also blow gently on the plate until you see only a faint powder pattern where the finger prints were!

9. Carefully place a piece of sticky tape straight down over the prints and press it down



10. Lift the tape off and stick it to a piece of coloured paper. Could you identify these prints as yours? What type of finger print did you discover? Compare your finger print with your other family members.

