



Physical Evidence Fingerprint Analysis

One final piece of evidence to investigate were the fingerprints left on Sangita Mistry's iPhone case. No two people have the same fingerprints, not even identical twins. This means that the police are able to make accurate matches between suspects and prints left at the crime scene. The four main prints that police look for are: **whorls**, **loops**, **arches** and **composite** prints.

Our evidence:

- 1) Photo of three fingerprints on the case.



2) **Fingerprint samples** from Brodie Smith, Marco Albenni, Sangita Mistry, Debbie Downes. Observe the fingerprints on the phone case. Look for the fingerprint styles to make a match.

	Right ring style	Right middle style	Right forefinger style	Match Y/N
Brodie Smith				
Marco Albenni				
Sangita Mistry				
Debbie Downes				

Whose fingerprints match those found on the iPhone case? Based on all of the evidence you've investigated, can you identify the phone thief?

-**Loops** are found in 65% of the population (Most Common)



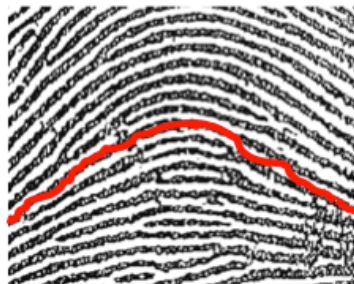
LOOP: Lines enter and exit in the same direction

-**Whorls** are found in 35% of the population



WHORL: Lines form a spiral – a bit like a whirlpool

-**Arches** are found in 5% of the population (Least Common)



ARCH: Lines enter and exit at opposite sides of the finger



COMPOSITE: A mixture of two or more separate patterns

CALGARY POLICE SERVICE

Name **SMITH, Brodie**

KEY NO. **45586D**



1. Right Thumb



2. Right Forefinger



3. Right Middle



4. Right Ring



5. Right Little



6. Left Thumb



7. Left Forefinger



8. Left Middle



9. Left Ring



10. Left Little

PREPARED BY: CALGARY POLICE SERVICE
IDENTIFICATION SECTION

Date **August 3, 2013**

Taken By

SIGNATURE

Left Right



CALGARY POLICE SERVICE

Name **ALBENNI, Marco**

KEY NO. **35794A**



1. Right Thumb



2. Right Forefinger



3. Right Middle



4. Right Ring



5. Right Little



6. Left Thumb



7. Left Forefinger



8. Left Middle



9. Left Ring



10. Left Little

**PREPARED BY: CALGARY POLICE SERVICE
IDENTIFICATION SECTION**

Taken By 

Date **August 3, 2013**

SIGNATURE

Left

Right



CALGARY POLICE SERVICE

Name **MISTRY, Sangita**

KEY NO. **28741M**



1. Right Thumb



2. Right Forefinger



3. Right Middle



4. Right Ring



5. Right Little



6. Left Thumb



7. Left Forefinger



8. Left Middle



9. Left Ring



10. Left Little

**PREPARED BY: CALGARY POLICE SERVICE
IDENTIFICATION SECTION**

Taken By

Date **August 3, 2013**

SIGNATURE

Left Right



CALGARY POLICE SERVICE

Name DOWNES, Debbie

KEY NO. 71321Y



1. Right Thumb



2. Right Forefinger



3. Right Middle



4. Right Ring



5. Right Little



6. Left Thumb



7. Left Forefinger



8. Left Middle



9. Left Ring



10. Left Little

PREPARED BY: CALGARY POLICE SERVICE
IDENTIFICATION SECTION

Date August 3, 2013

Taken By

SIGNATURE

Left

Right




LESSON 9: RESOURCE 2

Name: _____

Work with a partner to carefully take each other's fingerprints. Make sure you cover the fingertip in ink/ pencil lead and roll each finger from nail to nail.

Take each individual finger print and at the bottom, do the full hand print.

What patterns do you notice? Are there any accidental characteristics in the prints?
Discuss!

		<h3 style="margin: 0;">FINGERPRINTS</h3>		
Name _____				
1. Right Thumb	2. Right Forefinger	3. Right Middle	4. Right Ring	5. Right Little
6. Left Thumb	7. Left Forefinger	8. Left Middle	9. Left Ring	10. Left Little
PREPARED BY: CALGARY POLICE SERVICE IDENTIFICATION SECTION				
Date _____				
Taken By _____			SIGNATURE _____	
		Left	Right	