

FOLLOWING THE TRAIL OF
EVIDENCE

FORENSIC KIT



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TEACHER KEYS

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SHOEPRINT IMPRESSION EVIDENCE

ANSWER: The unknown shoe impressions can be identified to known shoe 3.



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QUESTIONED DOCUMENTS EXERCISE

Handwriting Comparison

1. F
2. D
3. J
4. G
5. A
6. L
7. E
8. C
9. H
10. I
11. B
12. K



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DNA COMPARISON EXERCISE



ANSWER: Evidence Q1 Profile matches Known K2 Profile



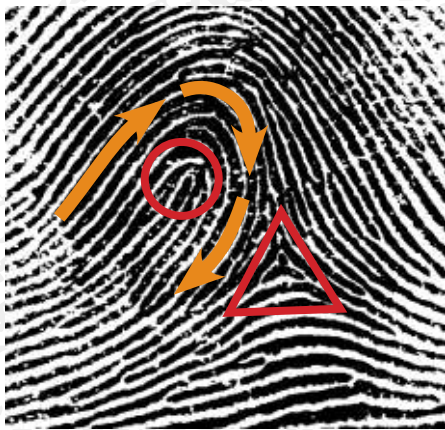
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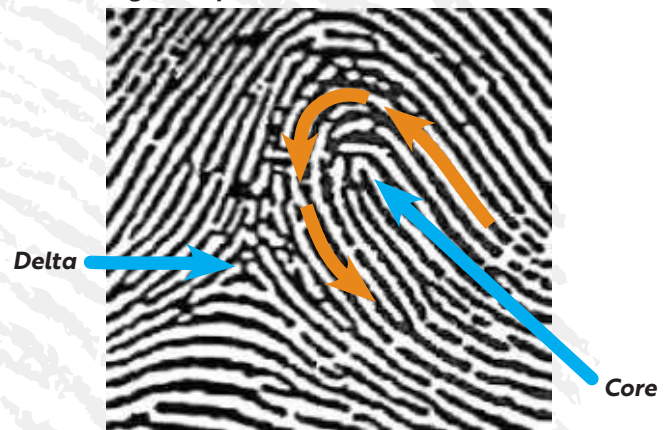
LOOP PATTERNS:

- Ridges enter on one side, recurve, and exit on the same side (—)
- Have 1 core (center of recurve)  and 1 delta (triangle shape) .
- Left loops: ridges enter on the left, recurve, and exit on the left
- Right loops: ridges enter on the right, recurve, and exit on the right

Left Loop



Right Loop



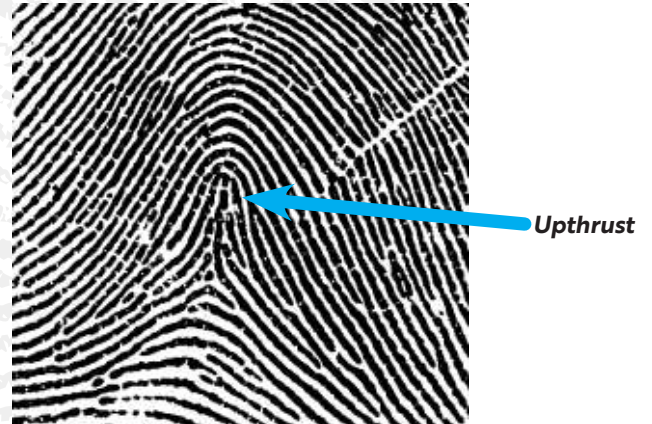
ARCH PATTERNS:

- Ridges run from one side to the other making no backward turn or recurve
- Ridges create a wave-like pattern
- Have 0 cores and 0 deltas.
- Plain arches: look like a wave; easy flow
- Tented arches: have a significant upthrust; appear to form tents

Plain Arch



Tented Arch



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FINGERPRINT PATTERN EXERCISE

Identify the following pattern types and label the cores and deltas.



1. PATTERN TYPE: Left Loop



2. PATTERN TYPE: Plain Whorl



3. PATTERN TYPE: Tented Arch
(no cores or deltas)



4. PATTERN TYPE: Double Loop Whorl

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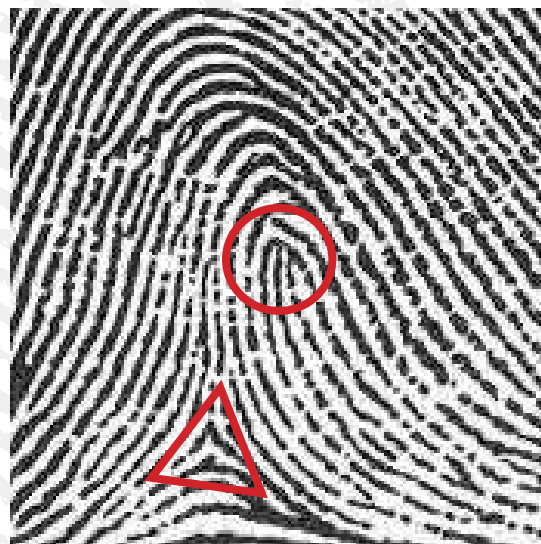
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FINGERPRINT PATTERN EXERCISE

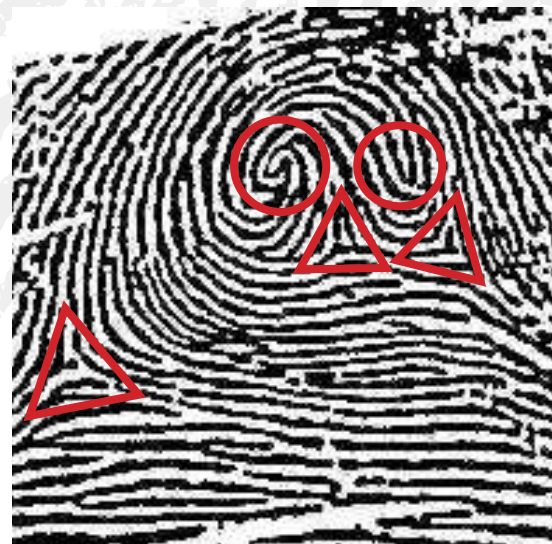
Identify the following pattern types and label the cores and deltas.



5. PATTERN TYPE: Central Pocket Loop Whorl



6. PATTERN TYPE: Right Loop



7. PATTERN TYPE: Accidental Whorl



8. PATTERN TYPE: Plain Arch (no cores or deltas)

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FINGERPRINT COMPARISON EXERCISE

NOTE: Different combinations of Galton features can be identified for each set of prints as long as they are consistent between both prints when an identification is made.

1.



RC = 13

Unknown Print



RC = 13

Known Print

PATTERN TYPE: Right Loop

PATTERN TYPE: Right Loop

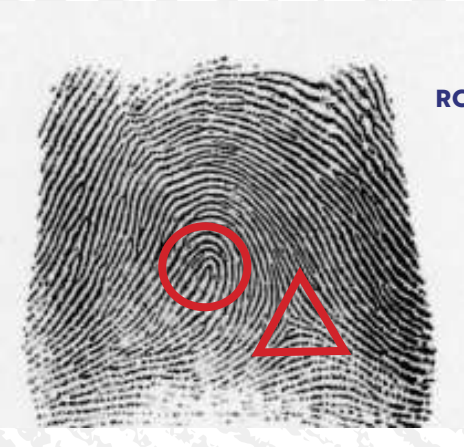
CONCLUSION: Identification

2.



NO CORES
OR DELTAS

Unknown Print



RC = 12

Known Print

PATTERN TYPE: Tented Arch

PATTERN TYPE: Left Loop

CONCLUSION: Elimination (based on pattern type – did not proceed passed level 1 analysis)

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3.



Unknown Print

PATTERN TYPE: Double Loop Whorl

CONCLUSION: Elimination



Known Print

PATTERN TYPE: Double Loop Whorl

4.



RC = 11

Unknown Print

PATTERN TYPE: Plain Whorl

CONCLUSION: Identification



RC = 11

Known Print

PATTERN TYPE: Plain Whorl

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DIGITAL FORENSICS EXERCISE

ANSWER: No clues here. LOL



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Crime Scene Field Notes		Case Number	Page	of	
Offense	Burglary		Location	Address of the crime scene	

DATE: _____ **DAY:** _____ **TIME NOTIFIED:** _____

TIME ON SCENE: _____ **REPORTING OFFICER ON SCENE** Name of first officer on scene

TEAM MEMBERS ON SCENE: Name of all individuals processing the scene - if being completed in groups.

LEGAL AUTHORITY: Is a search warrant or consent to search required? _____

PERIMETER ASSESSMENT: Students should discuss in their groups where they would erect the crime scene perimeter (crime scene tape). Once decided, students should describe the boundaries in this section. Details such as entrances, exits, and signs of forced entry should be considered. Students should ensure that all evidence is secured within the boundaries of the perimeter.

TRANSIENT EVIDENCE EVALUATION: Students should practice identifying transient evidence. Transient evidence is defined as evidence that is temporary. Items such as odors and fragile shoe impressions may be lost or damaged during scene processing. Investigators must work to identify, preserve, and recover those items early in scene investigation.

BRIEFING FROM FIRST RESPONDING OFFICER:

The following briefing should be provided to students:

I responded to a 911 call made from the university. The caller, Dr. Wigglesworth, reported that her prize-winning crime-sniffing dog, Barkley, had been stolen from her office. She brought Barkley to work this morning and left him napping in her office while she helped a student. Her office door was closed and locked when she left. When she returned, she found her door wide open and Barkley missing. When I arrived, I noticed a shoe impression in front of the door. In the office, I observed a crowbar, a cell phone, a blue latex glove, a piece of yellow fabric, and a red dog collar with bells. Dr. Wigglesworth reported the collar belonged to Barkley. She also reported that the crowbar, cell phone, glove, and yellow fabric did not belong to her. I also observed what appeared to be small crumbs leading from the collar to the door.

TEMPERATURE, LIGHTING, & WEATHER DATA: _____

REPORTING INVESTIGATOR SIGNATURE	DATE

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Crime Scene Field Notes	Case Number	Page		of	
Offense		Location			

PREPARATION: Students should be instructed to make a list of supplies required to effectively process this scene.

HEALTH AND SAFETY HAZARDS: Students should discuss and notate any potential health and safety hazards present on the scene.

SCENE DESCRIPTON: In this section, students should write detailed, accurate, and understandable notes about the scene. Elements to be recorded include the general scene layout, specific and relevant physical features of the scene, any conditions of the scene.

REPORTING INVESTIGATOR SIGNATURE	DATE

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Crime Scene Field Notes		Case Number	Page		of	
Offense			Location			

CONTAMINATION CONTROL PROCEDURES:
 Students should discuss and notate the proper personal protective equipment (PPE) for this scene as well as methods to prevent contamination. For each item of evidence, how should it be handled to prevent contamination?
 All items should be packaged separately.

REPORTING INVESTIGATOR SIGNATURE	DATE
Signature of student writing notes	