

CRIME SCENE DO NOT CROSS



OLA HIGH CRIMINAL JUSTICE FORENSIC SCIENCE



CRIME SCENE



UNIT 9 HOW FORENSIC SCIENCE IS USED IN THE COURTROOM

CRIME SCENE DO NOT CROSS

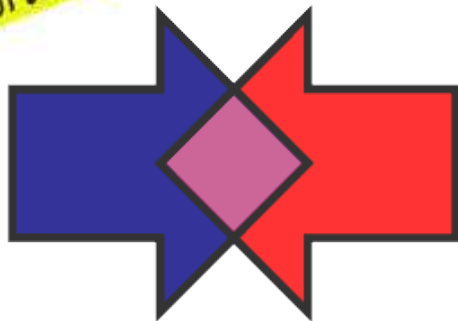
A vertical column of icons on the left side of the slide. From top to bottom: a yellow 'CRIME SCENE DO NOT CROSS' tape, several black tire tracks, a yellow evidence marker with the number '1', a white outline of a person lying on the ground, a black handgun, a magnifying glass over a fingerprint, a yellow 'CRIME SCENE' sign, and a black bullet hole with a starburst effect.

Evidence & Crime Scene Investigation

The goal of crime scene investigation is to recognize, document, and collect evidence at the scene of a crime. Solving the crime will depend on piecing together the evidence to form a picture of what happened at the crime scene.

CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



THE LOCARD EXCHANGE

Dr. Edmond Locard:
Every criminal can be connected to a crime by small particles carried from the scene.

- Whenever 2 objects come in contact with one another, a cross-transfer of physical evidence can occur.
- The intensity, duration, and nature of the materials in contact determine the extent of the transfer.



CRIME SCENE



Edmond Locard, also known as the "Sherlock Holmes of France" came up with a principle that states that every contact by a criminal leaves behind a trace.



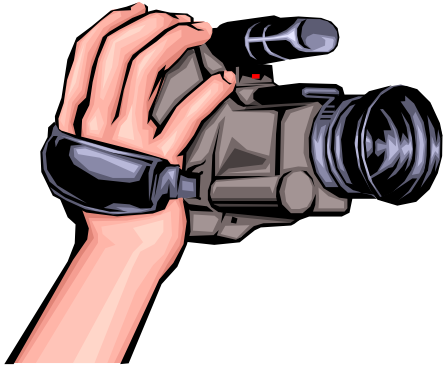
CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



ALERT SECURITY BAG		
EVIDENCE		
Item Number	Serial	
Type of Offense	Description of Evidence	
Quantity	Weight	
Material Type of Recovery	Location of Recovery	
Recovery By	Witness	
CHAIN OF CUSTODY		
Received From	Date	ASA / FBI
Received From	Date	ASA / FBI
Received From	Date	ASA / FBI
Received From	Date	ASA / FBI
Received From	Date	ASA / FBI
Warning: THIS IS A TAMPER EVIDENT SECURITY INCLOSURE. ONLY SOLE AGENTS AND OFFICERS TO WHOM THIS BAG IS ISSUED ARE AUTHORIZED TO OPEN IT.		
INTEGRITY SYSTEMS		

Evidence



- Direct evidence- first hand observations (eyewitness account, videos, confessions)



CRIME SCENE DO NOT CROSS

Eyewitness Accounts

• Eyewitness Accounts by Victims or Witnesses

- Eyewitness accounts vary considerably from person to person
- Eyewitness accounts can be unreliable and have led to the imprisonment of many wrongfully convicted suspects
 - » **INNOCENCE PROJECT** – Project with aim to free wrongfully convicted
 - 87% of all wrongful convictions were a result of flawed eyewitness testimony



CRIME SCENE DO NOT CROSS

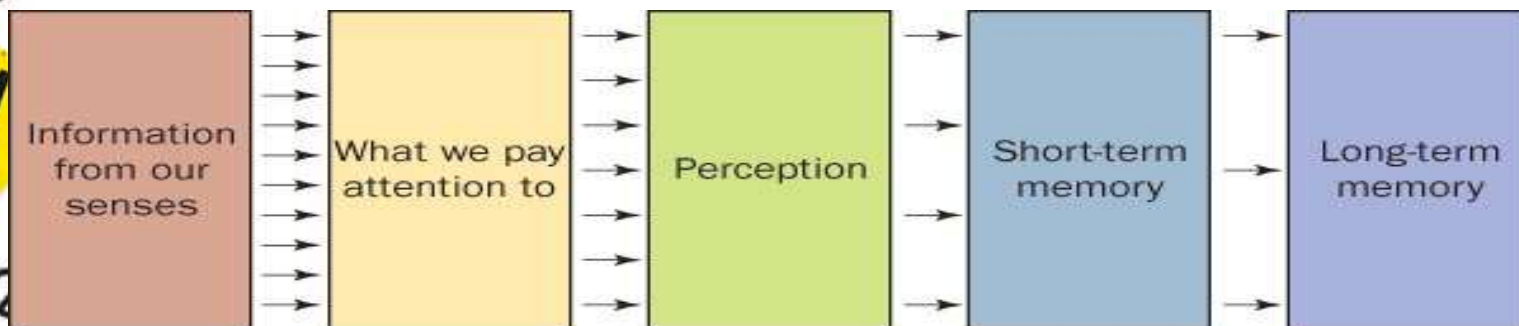
CRIME SCENE DO NOT CROSS



CRIME SCENE



What Effects our Observations?



Our Brains do not pay attention to all information around us.

Perception- interpreting information received from our senses

Perception is skewed by our emotions, state of mind, and prior experiences or knowledge

Short term memory – lasts only a short period of time

A few minutes to 24 hrs

CRIME SCENE DO NOT CROSS

Evidence

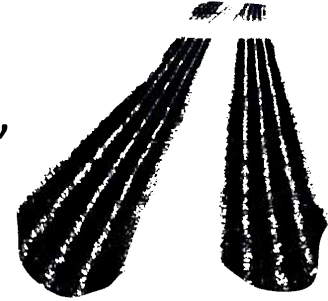
- Circumstantial evidence- indirect evidence that can be used to imply a fact but does not directly prove it. Example: finding a suspect's gun at a crime scene is circumstantial evidence that the suspect was there.



CRIME SCENE DO NOT CROSS

Types of circumstantial evidence:

a) Physical evidence: synthetic fibers, weapons, bullets, shell casings, paint chips, documents, imprints and prints (shoes, tires, etc.), tool marks, soil, drugs, etc.



b) Biological evidence: body or body parts, body fluids, hair, leaves or other plant parts, natural fibers, feathers, wood



c) Trace evidence: **Small** but measurable amounts of **physical or biological** material found at a crime scene. Examples: **strand** of hair, fingerprint, DNA, **drop** of blood, pollen, gunshot residue



CRIME SCENE DO NOT CROSS



The more circumstantial evidence there is, the greater weight it carries. (Probability and Statistics)

CRIME SCENE DO NOT CROSS

Evidence can also be divided into:

Class evidence: narrows evidence to a group of persons or things

can be used to exclude some suspects



i.Example: Blood Type- can be A, B, AB, O. Finding one type at a crime scene narrows down the suspects to a smaller group.

Individual evidence: narrows evidence down to a single person or thing.

i.Example: Fingerprints, handwriting, DNA, and sometimes physical matches.

Class evidence may become more individualized. For example: blue jeans. We may be able to narrow them down by brand, material, size, color, etc. If worn, they might have rips or stains to help individualize them.

CRIME SCENE DO NOT CROSS



CRIME SCENE



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



CRIME SCENE



Determine the 3 types of evidence for this example:



Types of Evidence:

- Direct or circumstantial?
- Physical or biological?
- Class or individual?

CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



Importance of Evidence

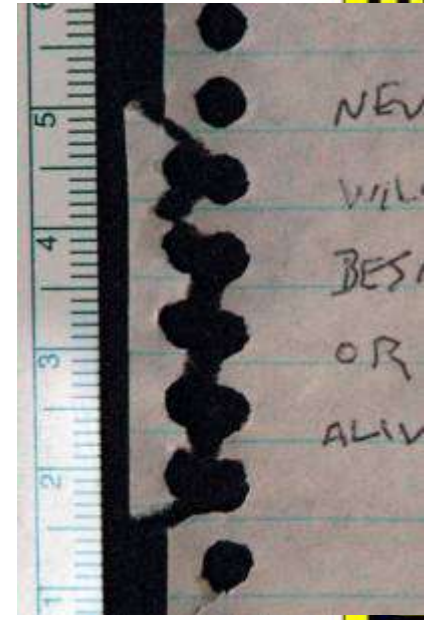
i. Can **prove** a crime has been committed and set the scene for the investigation.



- ii. Can **back up** witness testimony or prove it **false**.
- iii. Can **link** a suspect with a victim or with a crime scene.
- ii. Can determine the **identity** of people associated with a crime.
- ii. Allows investigators to **reconstruct** a crime.

CRIME SCENE DO NOT CROSS

Which examples do you think could be individual evidence?



CRIME
NOT CROSS

CRIME SCENE DO NOT CROSS

The Crime Scene Investigation Team:

- First Police Officer on the scene
- Backup Police and possibly a district attorney
- Medics
- Investigator/Detective
- Medical Examiner
- Photographer and/or Field Evidence Technician
- Lab Experts



CRIME SCENE DO NOT CROSS



CRIME SCENE



CRIME SCENE DO NOT CROSS



CRIME SCENE



Seven S's of Crime Scene Investigation:

1. Secure the scene
2. Separate the witnesses
3. Scan the scene
4. See the scene
5. Sketch the scene
6. Search for evidence
7. Secure and collect evidence



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



CRIME SCENE



Securing the Scene:

The first responding police officer must make sure the scene is secure by first making sure all individuals in the area are safe and second by preserving evidence.

1. Obtain medical assistance if needed
2. Arrest suspects
3. Isolate the area
4. Request additional needs for investigations



CRIME SCENE DO NOT CROSS



Separating the Witnesses:

Witnesses must not be allowed to talk to one another. This prevents them from working together to create a story (collusion).



CRIME SCENE DO NOT CROSS

The Innocence Project.org

- Created in 1992, the goal was to reexamine post-conviction cases.
- When evaluating eye witness testimony, the investigator must discriminate between fact and opinion. What did the witness actually see?



CRIME SCENE DO NOT CROSS



CRIME SCENE



Scan the Scene:

i. Forensic examiners scan the scene to see where photos should be taken. The primary and secondary crime scenes must be determined.

1. The primary crime scene is where a crime actually occurred.
2. A secondary crime scene is in some way related to the crime but is not where the actual crime took place.



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

See the Scene:

- i. A crime scene examiner looks at the scene. The Photography Unit takes photos of the overall area and close up photos with and without a measuring ruler.



CRIME SCENE



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

Sketching the Scene:

1. North should be labeled and a scale of distance should be included
- All important objects (weapon and body) should be measured from two immovable landmarks
- Any other objects in the vicinity of the crime should be included in the sketch (ex. Doors, windows, furniture, trees, vehicles, etc.)
- Also include: Date, time, location, case number, and names
(Sketched by and Verified by)

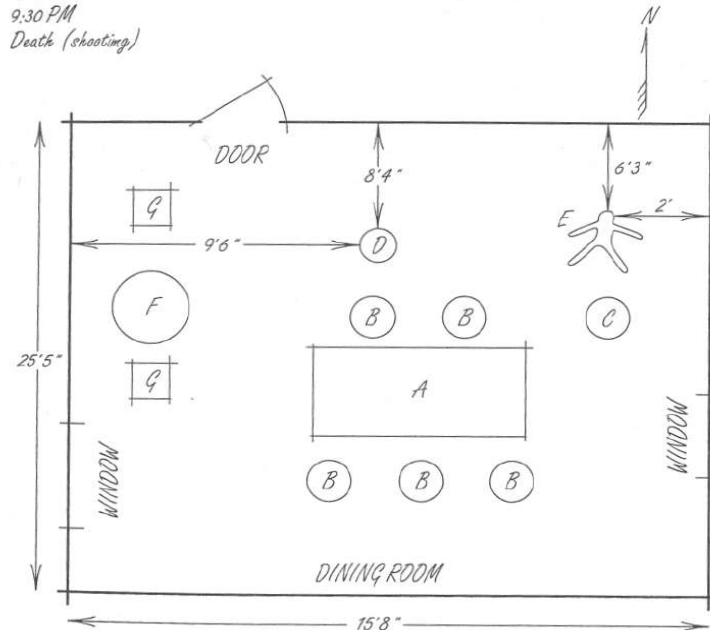


CRIME SCENE



2741 Aragon St.
6/7/81
9:30 PM
Death (shooting)

Sketch by Officer
John Smith



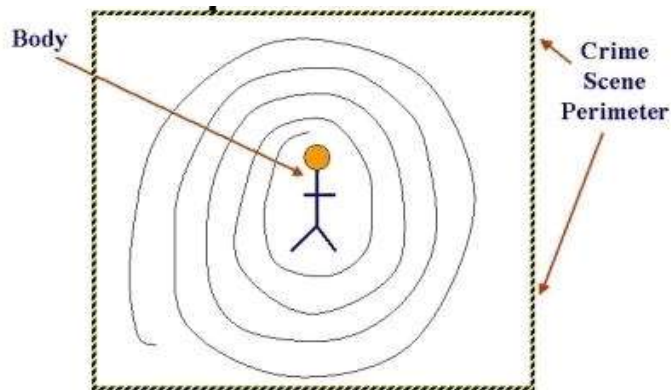
- A - Dining room table
- B - Chair
- C - Overturned chair
- D - 0.38 Revolver
- E - Male body
- F - Table
- G - Chair

CRIME SCENE DO NOT CROSS

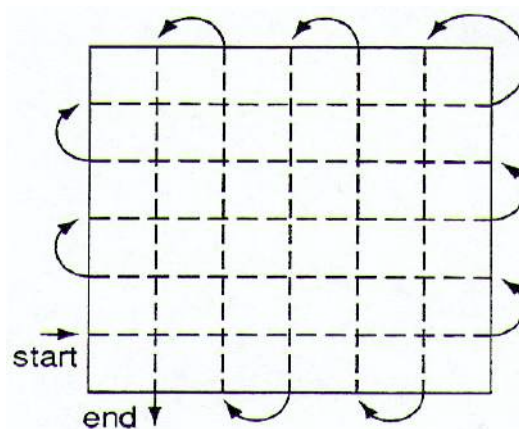
CRIME SCENE DO NOT CROSS

Search for Evidence:

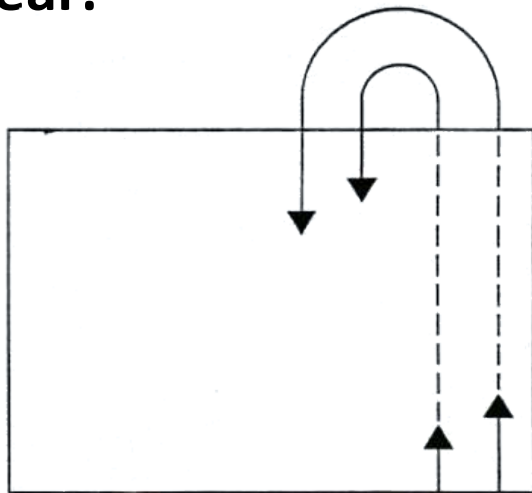
Spiral:



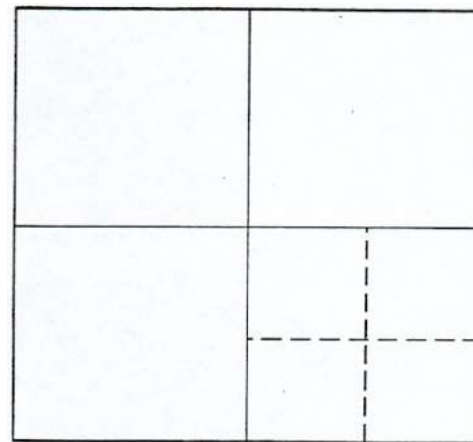
Grid:



Linear:



Quadrant or Zone:



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

Securing and Collecting the Evidence:

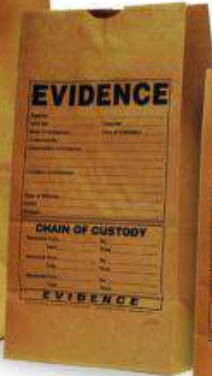
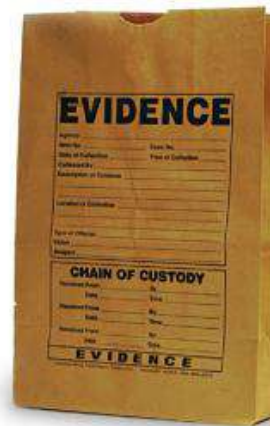
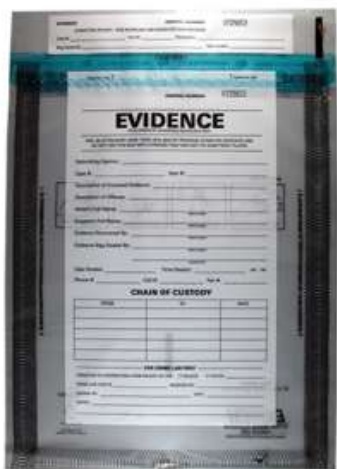
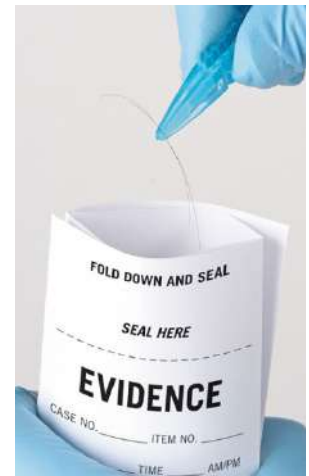
i. All evidence must be properly packaged, sealed and labeled using specific techniques and procedures.

ii. Packaging Evidence

1. Metal or plastic **forceps** may have to be used to pick up small items.

1. Plastic **pill** bottles with lids are preferred containers for hairs, glass, fibers, and other kinds of **trace** evidence.

1. Liquids and arson remains are stored in **airtight**, unbreakable containers.



CRIME SCENE

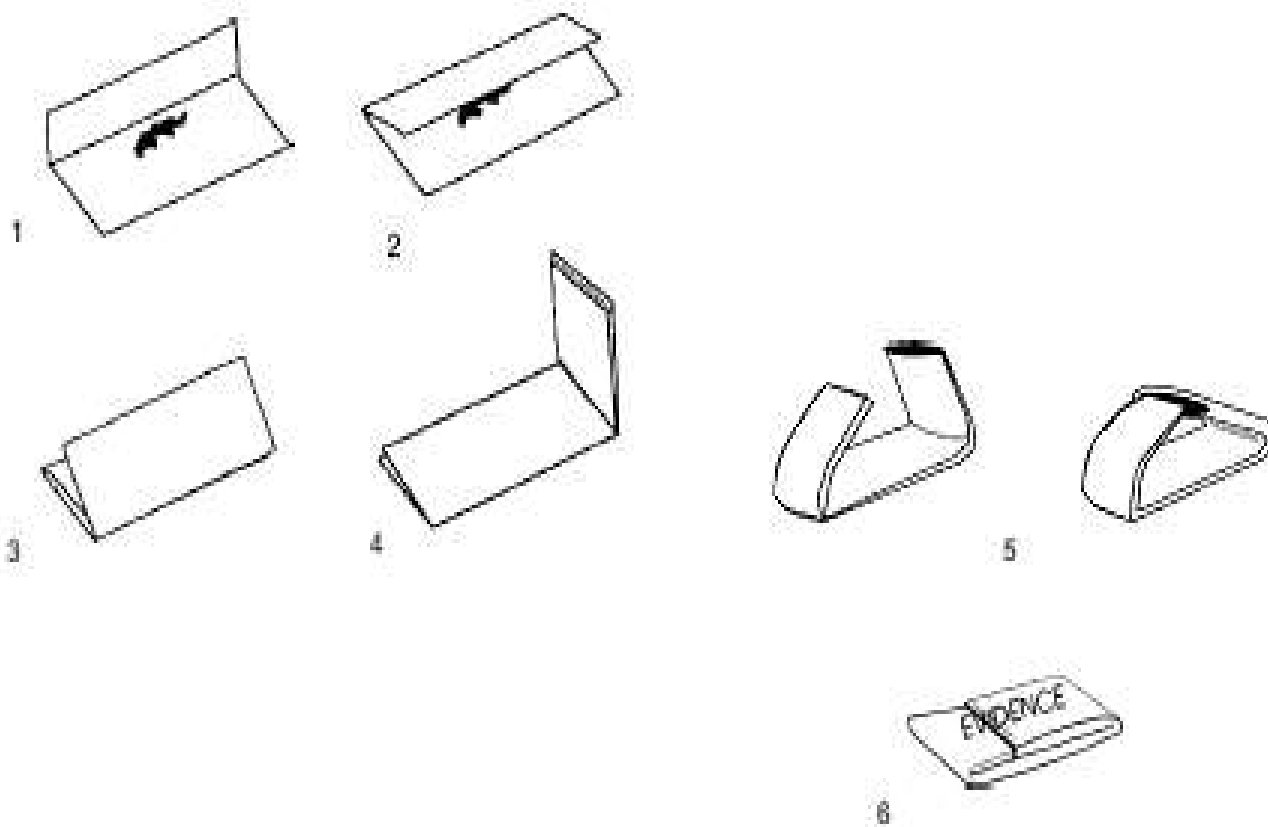


CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

Druggist's Fold for Evidence:

Most biological evidence is stored in breathable containers so the evidence can dry out, reducing the chances of mold contamination. After the evidence has air dried, it is packaged into a paper **bundle** (or druggist's fold) then placed in a paper or plastic container.



CRIME SCENE



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS



CRIME SCENE



Evidence Log & Chain of Custody

- Each person who comes in contact with a piece of evidence must use proper procedure and protocol in order to maintain responsible handling of evidence from crime scene to courtroom in order for the evidence to be admissible in court.

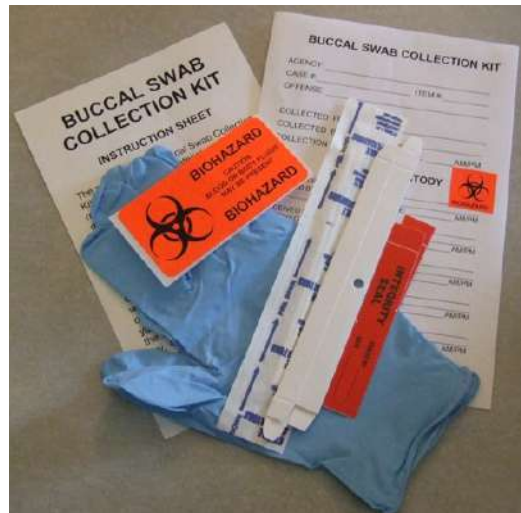
EVIDENCE	
Submitting Agency	_____
Date Collected	_____ Time _____
Item #	_____ Case # _____
Collected By	_____
Description of Evidence	_____ _____
Location Where Collected	_____
Type of Offense	_____
CHAIN OF CUSTODY	
Rec. From	_____ By _____
Date	_____ Time _____
Rec. From	_____ By _____
Date	_____ Time _____
Rec. From	_____ By _____
Date	_____ Time _____

CRIME SCENE DO NOT CROSS

Control Samples:

Control samples should also be taken from the victim for purposes of exclusion (blood, hair, etc.)

Standard/Reference Sample- Physical evidence whose origin is known, such as blood or hair from a suspect, that can be compared to crime-scene evidence.



CRIME SCENE DO NOT CROSS



Analyze the Evidence:

- A forensic lab processes all evidence the crime scene investigation team collected.
- Forensic lab technicians are specialized and process one type of evidence, unlike CSI TV shows where they may process many.



CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

Crime Scene Reconstruction:

Crime scene reconstruction allows the detectives to form a hypothesis of the sequence of events from before the crime was committed through its commission.



CRIME SCENE



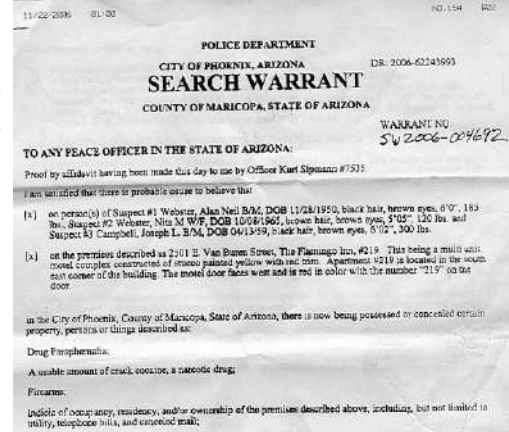
CRIME SCENE DO NOT CROSS

CRIME SCENE DO NOT CROSS

Legal Considerations:

a. Any **removal** of **evidence** from a crime scene must be in accordance with the **Fourth** Amendment.

“The right of the people to be secure in their persons, houses, papers, and effects, against **unreasonable** searches and **seizures**, shall not be violated, and no Warrants shall issue, but upon **probable cause**, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”



CRIME SCENE



CRIME SCENE DO NOT CROSS



A warrantless search can be conducted:

- under emergency circumstances (danger to life or limb)
- if there is immediate danger of the loss or destruction of evidence
- if there is probable cause — the search of a person and their immediate property in conjunction with a lawful arrest
- with the consent of the involved parties



CRIME SCENE DO NOT CROSS