

Chapter 2

CRIME SCENE

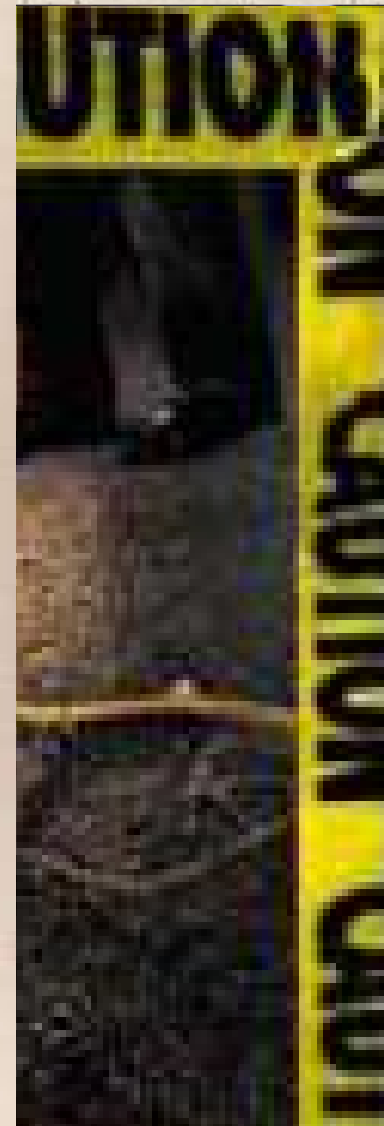
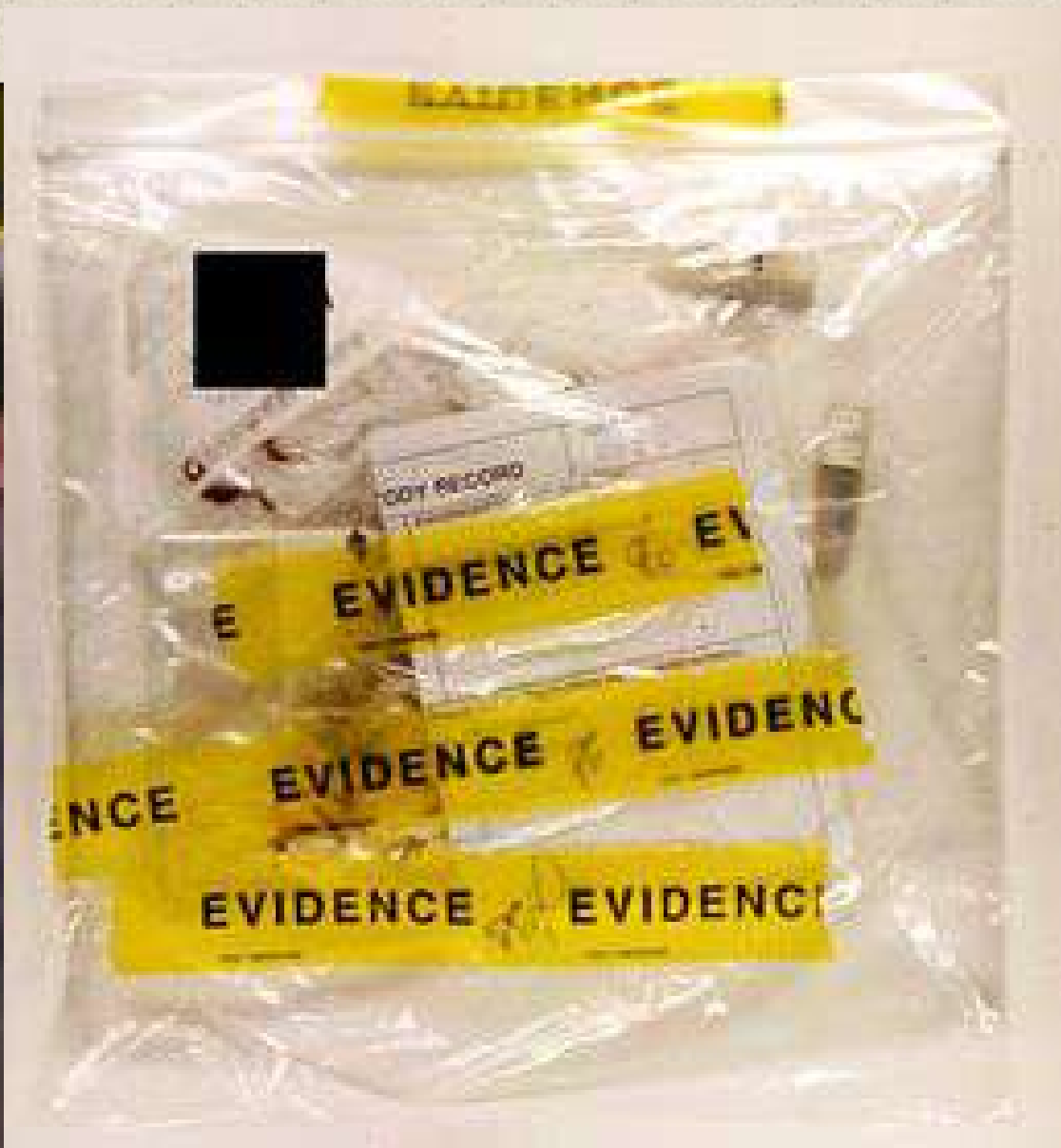
CRIME SCENE - DO NOT CROSS

Processing the Crime Scene

Forensic Science begins
at the crime scene.

If the investigator cannot recognize physical evidence or cannot properly preserve it for laboratory examination, no amount of sophisticated laboratory instrumentation or technical expertise can salvage the situation.

Physical Evidence



Securing, Protecting, Preserving and Isolating the crime scene is the responsibility of the first officer on the scene.

However, the first officer must do this as well as determining if the victim is in need of medical attention.

What do you think
is the biggest threat to
crime scene integrity?

Once the scene has been secured, a lead investigator will start processing the crime scene area.



Boundaries must be determined.

Interview

The first step in processing a crime scene

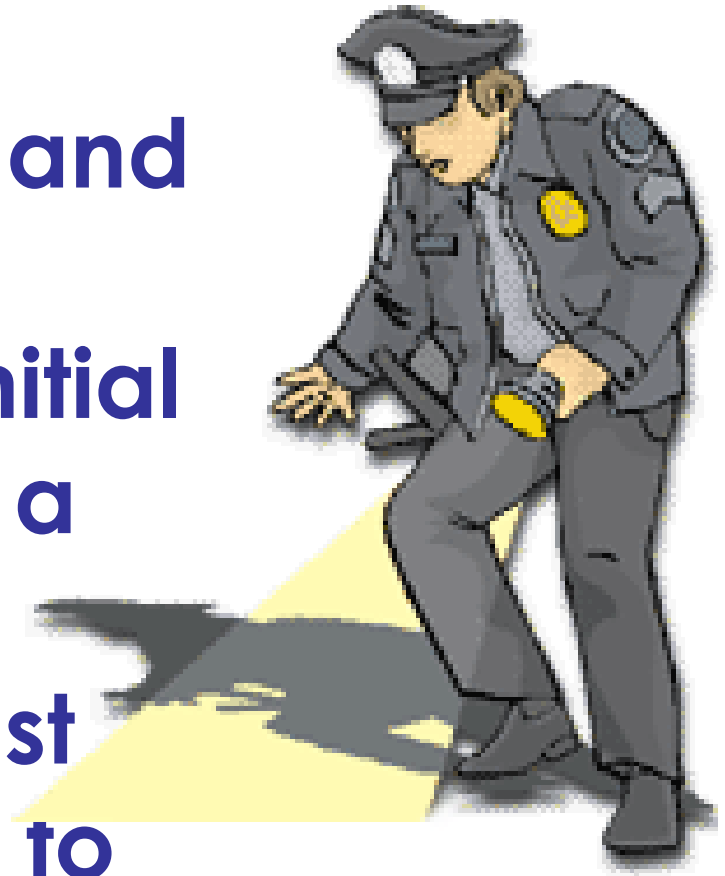
Lead investigator must speak with the first officer on the scene in order to determine what has happened and report who has been on the scene so far



Examine

The crime scene is the next step in the protocol.

Possible entrance and escape route(s) noted and recorded as the investigator does the initial walk through, keeping a written record of their observations. S(he) must keep an open mind as to possible scenarios



**Investigators
do not rely on
their memory
of the events,
they always
keep a
written log.**

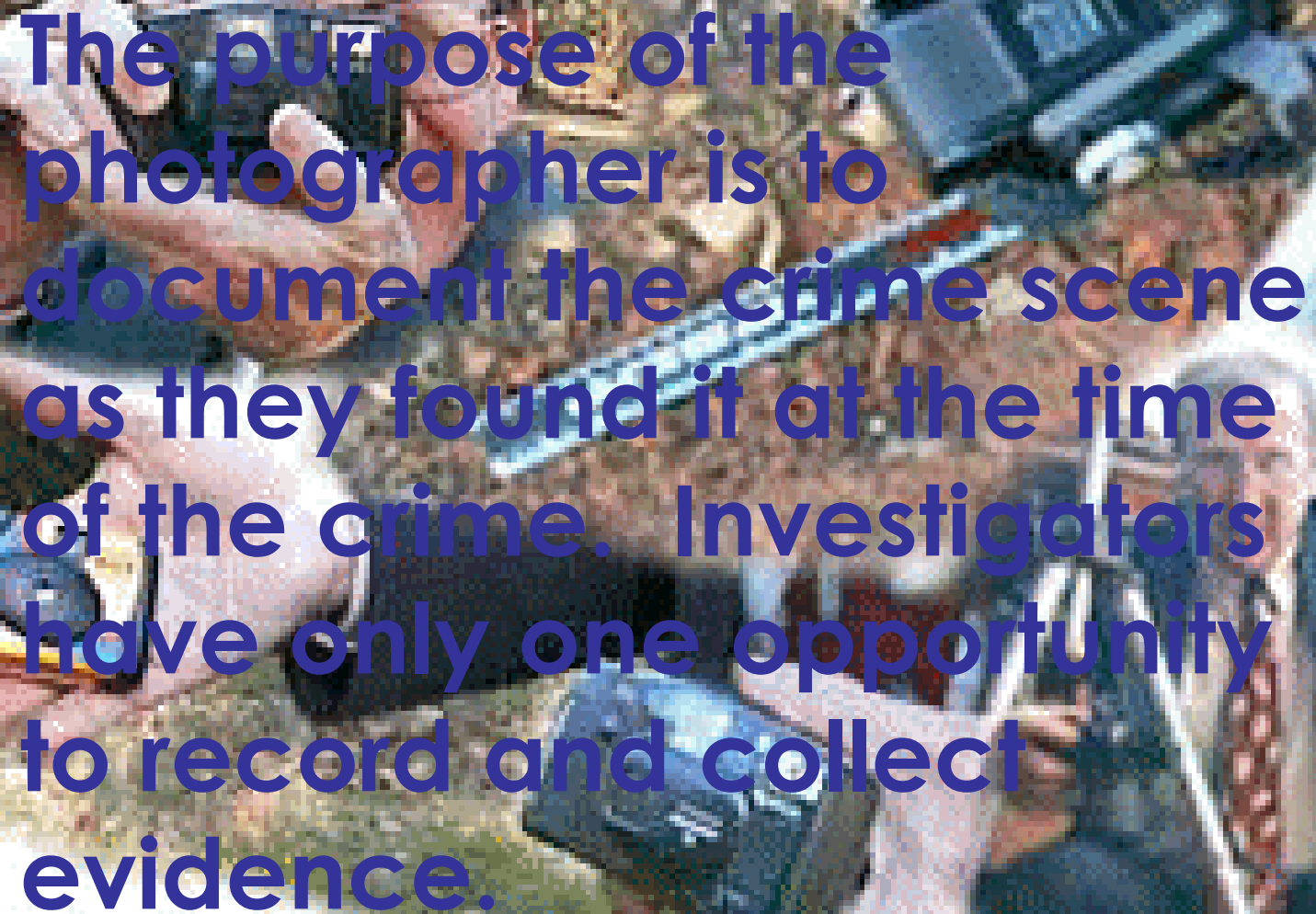


The next protocol step is to record the undisturbed crime scene.



Photograph

- 1. Overall crime scene**
- 2. Intermediate photos**
- 3. Close-up photos – using scale to depict details.**



The purpose of the photographer is to document the crime scene as they found it at the time of the crime. Investigators have only one opportunity to record and collect evidence.

Sketch

An essential documentation step in crime scene processing protocol

Keys to Crime Scene sketch:

- Dimension
- Distance
- Content
- Relationship among items of evidence



Purposes of the sketch

- ✓ Record the exact location and relationship of evidence to surroundings.
- ✓ Refresh the memory of the investigator
- ✓ Provide permanent record of conditions
- ✓ Assist prosecutor, judge and jury to understand conditions at the crime scene
- ✓ Help in questioning suspects and witnesses

Sketch Requirements

- ✓ **Rough** sketch need not be to scale but should be proportional showing accurate measurements to the nearest $\frac{1}{4}$ inch of the exact placement of the evidence and victim
- ✓ No changes should be made to **rough** sketch once you leave the scene
- ✓ Legend or key should be on **both** rough and finished drawings

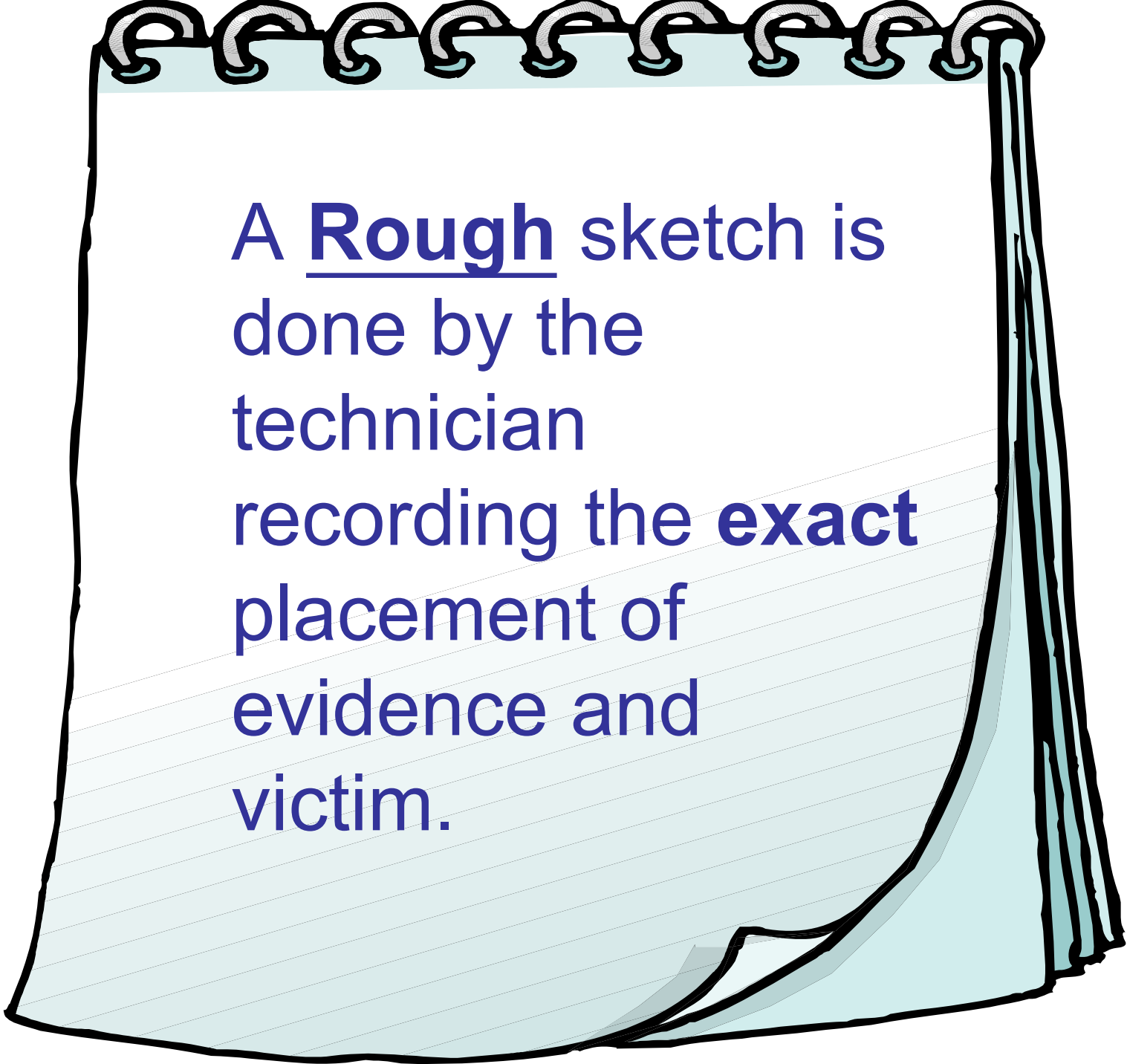
- ✓ Objects in scene should be marked with letters
- ✓ Evidence marked by a circled number
- ✓ North indicated on **both** drawings
- ✓ Must show all relevant materials
- ✓ **Rough** sketch may be made in pencil but **final** sketch must be made in ink

On the final sketch:

- ✓ Omit measurement lines
- ✓ Must include all items that were in the rough sketch; no additions, no deletions
- ✓ Scale notation must be noted
- ✓ Best if made by same investigator that made the rough sketch
- ✓ All measurements should face the same direction.

Final sketch continued:

- ✓ Arrow heads should touch measurement lines
- ✓ All hidden objects should be indicated by dotted lines
- ✓ No conclusions should be noted on the drawings
- ✓ Position of camera when photos were taken should be noted
- ✓ Objects located by triangulation or coordinate method when possible



A Rough sketch is
done by the
technician
recording the **exact**
placement of
evidence and
victim.

Accurate measurements to two **fixed points** must be recorded so that a scaled final sketch can be prepared for court presentation.

What are good examples of fixed points?



Construction Site

Kudzu Bush

Body

What's missing?

clearing

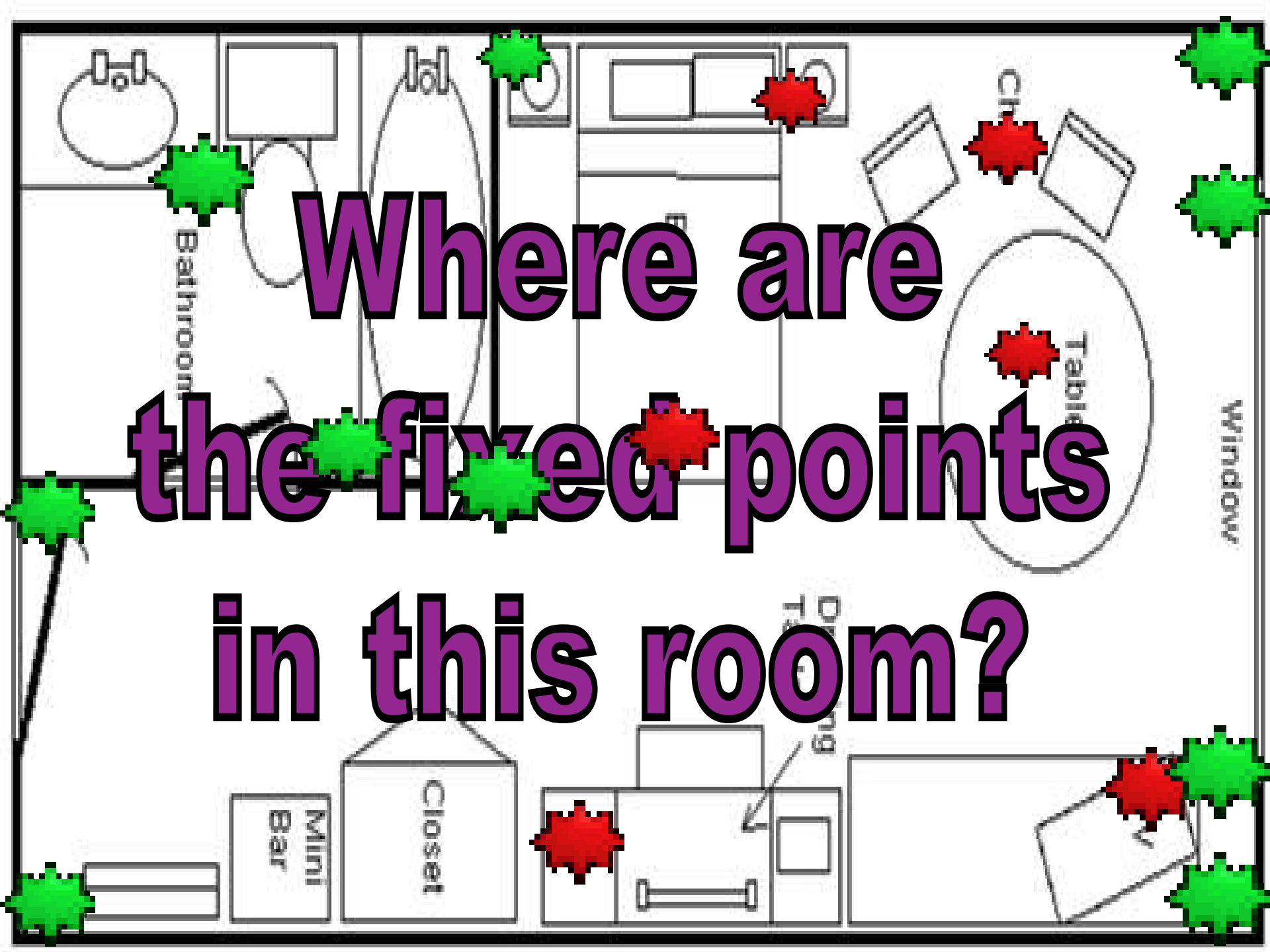
Rough sketch of out door crime scene

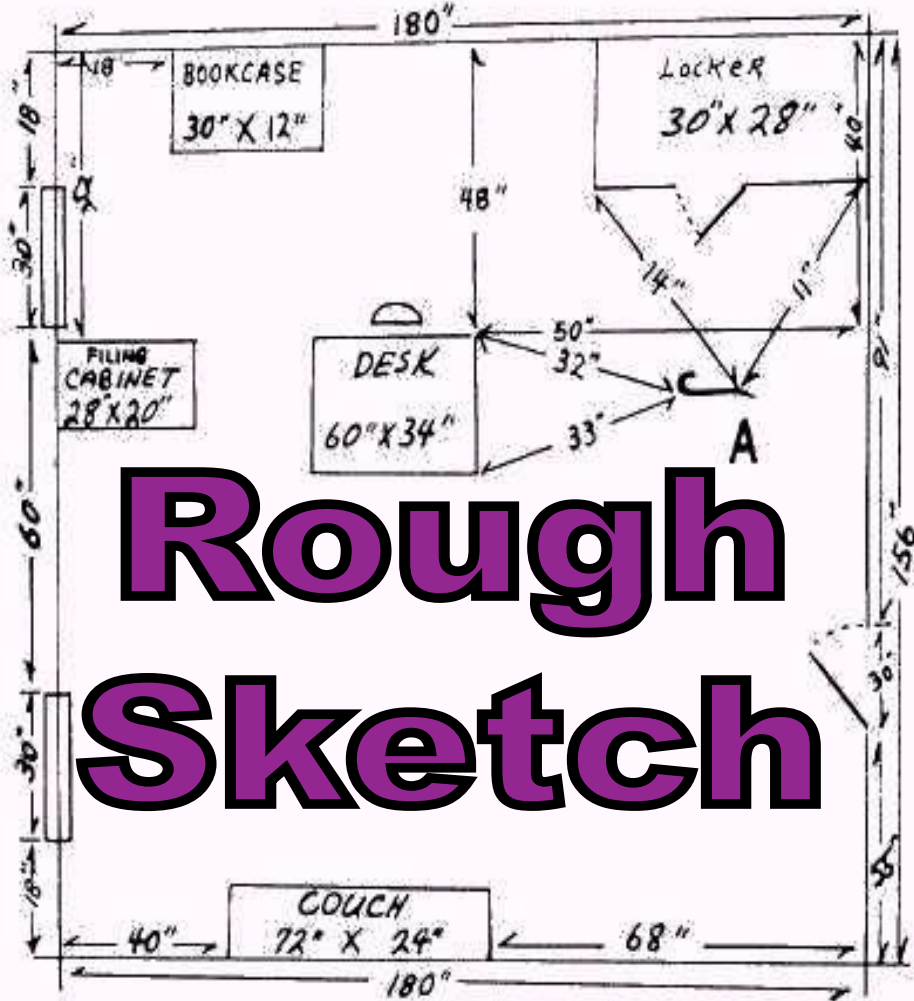
Kudzu Bush

---South

North-->

Where are
the fixed points
in this room?





Rough Sketch

LEGEND

A - CROWBAR

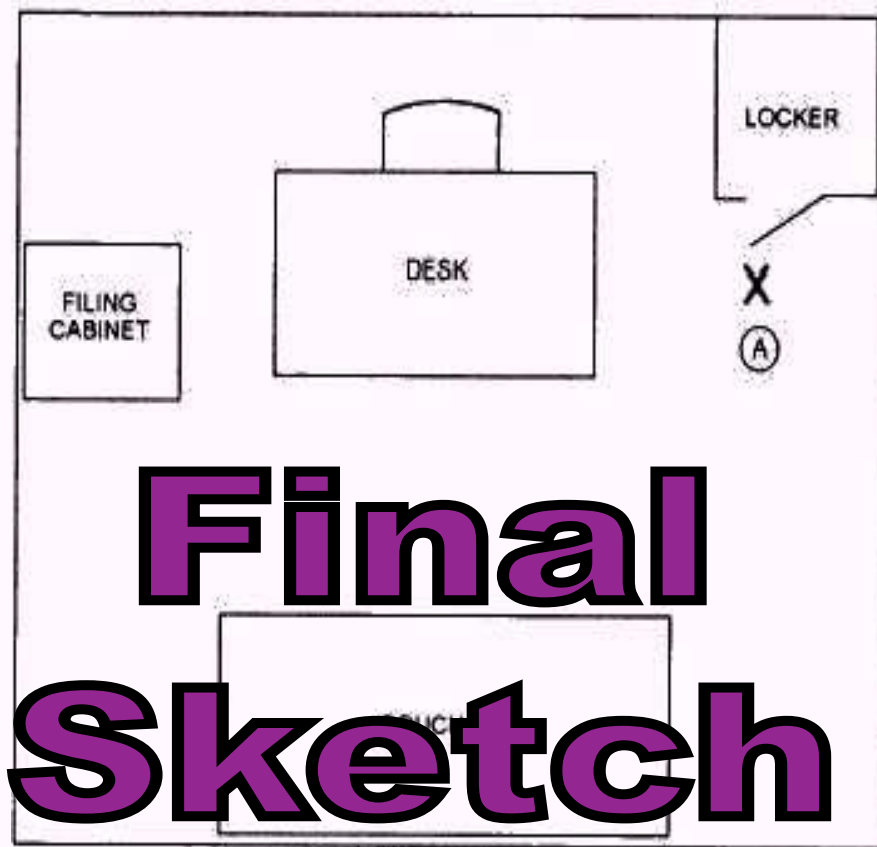
NOT DRAWN TO SCALE



ROUGH SKETCH

SUBJ. HOUSEBREAKING
 CC N.
 RM #175 Bldg. 3524
 NETPDC Pensacola, FLA.
 (STORAGE LOCKER)
 0730 15 NOV. 91
 DRAWN BY: MAC P. JONES
 APPROVED BY: MAC M. T. H. DOOR

TITLE BLOCK



Final Sketch

SCALE: 3/8"
 = 1 FOOT

LEGEND

(A) = CROWBAR

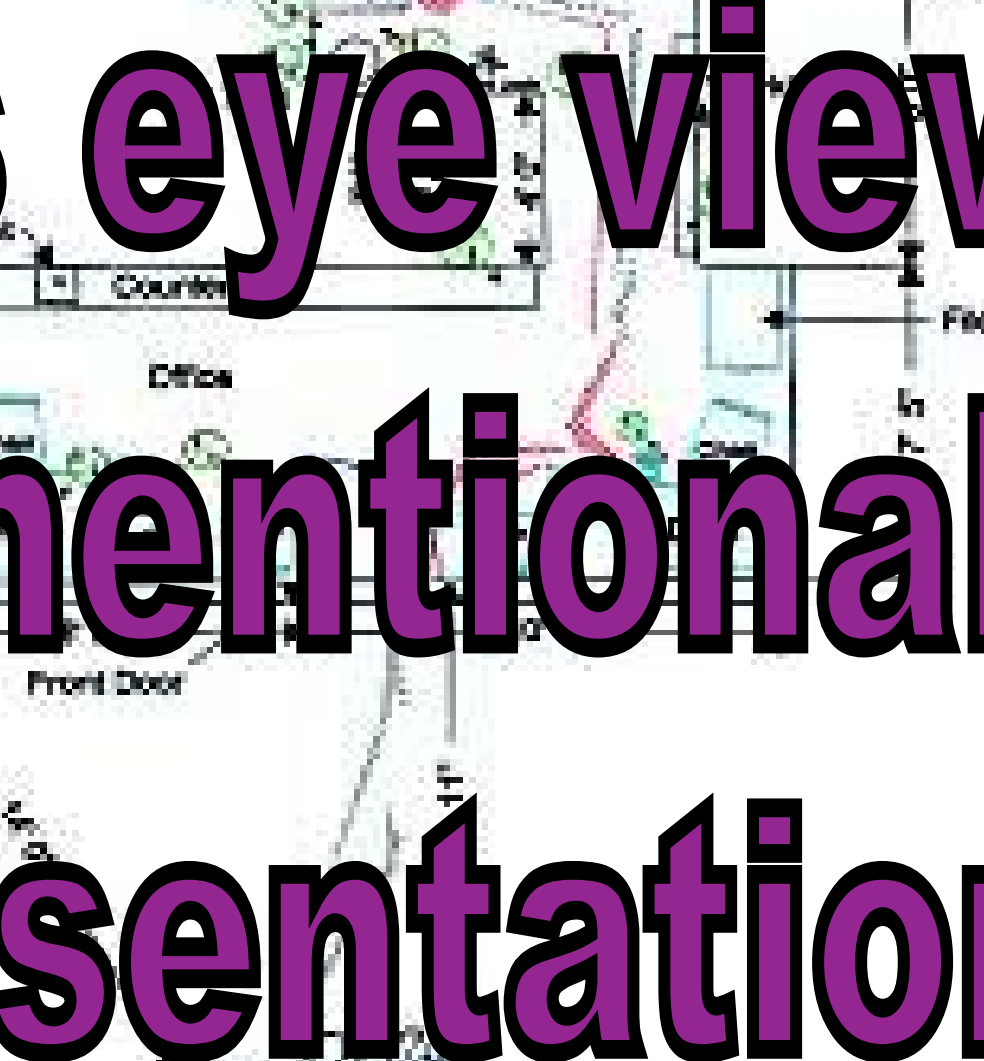
TITLE

REPORT OF INVESTIGATION
 OR INCIDENT REPORT #
 HOUSEBREAKING
 RM. #175 BLDG. 3524
 NETPDC PENSACOLA, FLA.
 SKETCHED BY:
 DM2 JOHN BRUSH
 VERIFIED BY:
 MAC P. BOATE



The Finished Sketch

- ✓ Is usually prepared for courtroom presentation.
- ✓ Must be to scale i.e. $\frac{1}{4}$ in. = 1 ft.
- ✓ Units used must be consistent i.e. make all measurements in metric or in feet/inches do not combine.



Footprint in Blood

To Shop

Counter

Office

Front Door

Free Cabinet

First eye view Conventional Representation



Bird's eye view
3 dimensional
representation



Computer representation

Shapes



Evidence



Generic
evidence



Rifle



Shotgun



Sawed off
shotgun



Pistol



Revolver



Pistol clip



Shell casing



Bullet
entrance



Bullet exit



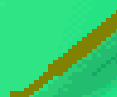
Screwdriver



Claw
hammer



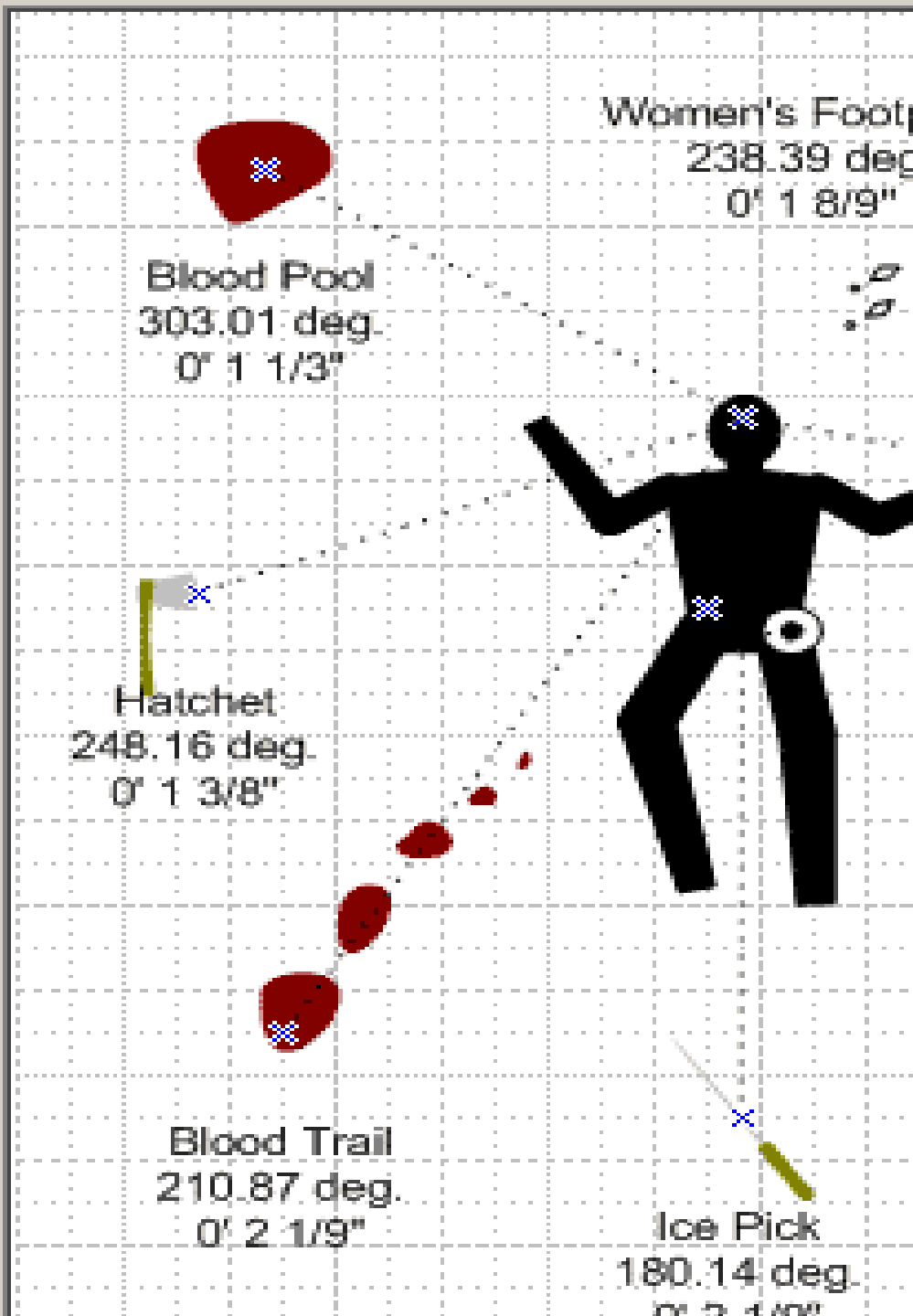
Crowbar



Baseball
bat



Ice pick



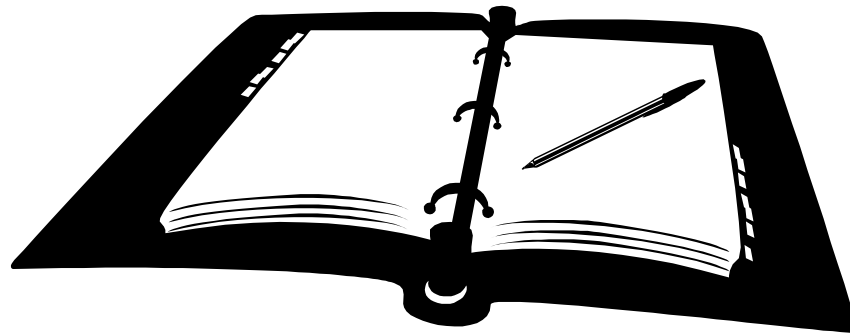
Crime Scene Notes



Should contain:

- ✓ Crime Scene description, weather conditions, temp.etc.
- ✓ Location of physical evidence
- ✓ Description of Physical evidence & the location found
- ✓ Disposition of physical evidence
- ✓ Be thorough, complete, descriptive and accurate

- ✓ Any and all observations
- ✓ Should start when call was received and end upon completion of entering of evidence into repository
- ✓ Aid in memory/recall
- ✓ Enhance credibility of investigator
- ✓ Have the date, time, when, and who the crime scene was released.



Systematic Search Patterns

Concentric/spiral –
used outside in or
inside out

Use when there is
only one investigator

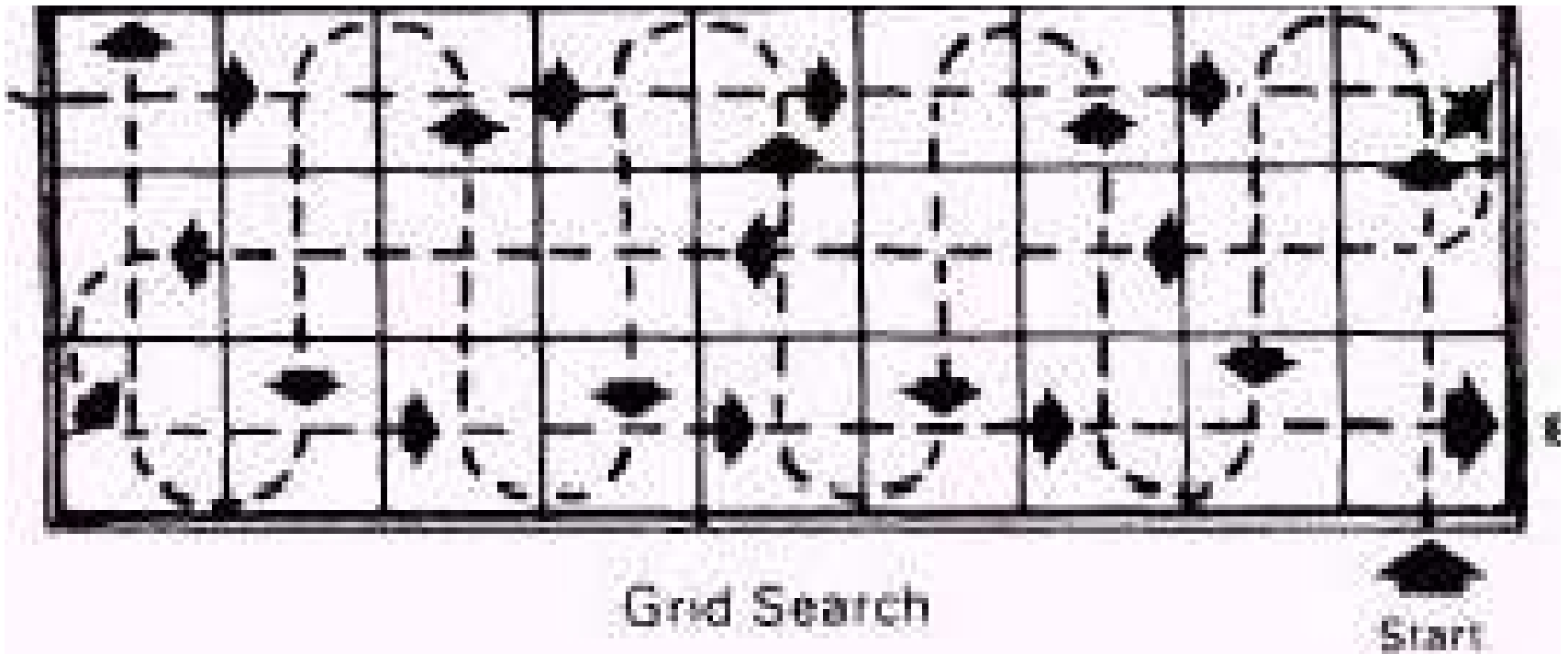


Strip or line search:
Outside area is divided into strips with each area searched completely before moving to the next area.
Can be done with as few as two people but usually



Grid Search:

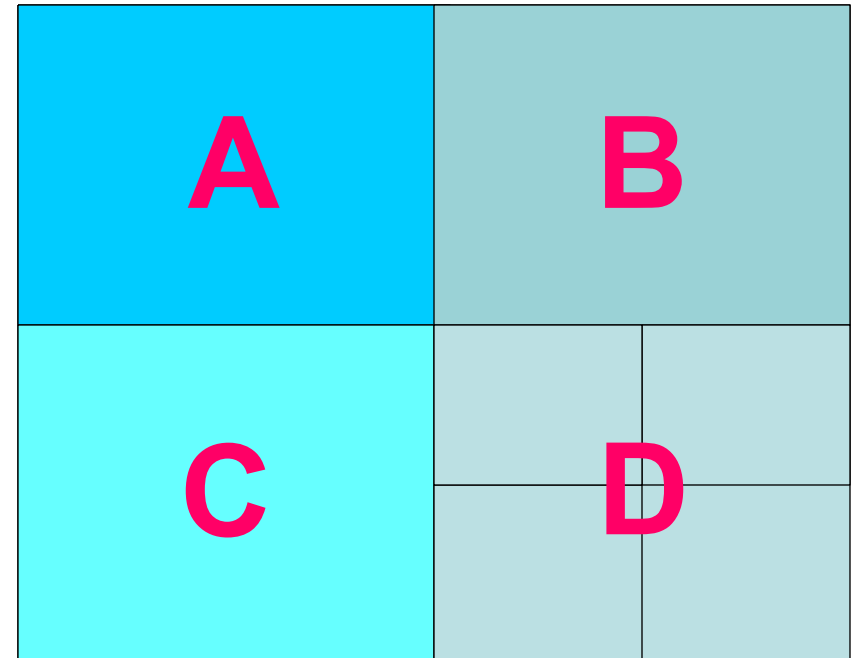
Area is divided into north/south, east/west strips allowing for secondary search of each area.



Quadrant/Zone (inside) or Sector (outside) Search:



Area is divided into equal zones and assigned an investigator to thoroughly search their zone.



- ✓ The search strategy may vary depending on the type of crime committed
- ✓ The investigator must be knowledgeable on the different types of evidence that can be left at a scene
- ✓ Some of the evidence will be easy to locate while other evidence may be microscopic and only be observed in a laboratory using the appropriate equipment.

- ✓ Therefore, it is important to collect *possible* carriers of trace evidence in addition to more discernible items.
- ✓ Obtain clothing of all associated with the crime.
- ✓ Critical areas of the crime scene should be vacuumed and contents submitted.
- ✓ Protect hands of the victim in order to retrieve any possible evidence found under the fingernail, etc.

The search for physical evidence must extend beyond the crime scene to the autopsy room of a deceased victim.

✓ Tissue and organ samples will be set to toxicology.

✓ Obtain from the body any additional evidence that must be sent to the forensic lab.

✓ Victim's clothing

✓ Fingernail scrapings

✓ Head and pubic hair

- ✓ Blood (for DNA typing)
- ✓ Vaginal, anal, and oral swabs (in sex-related crimes)
- ✓ Recovered bullets from the body
- ✓ Hand swabs from shooting victims (for gunshot residue analysis)

It is important to obtain any and all evidence from the body when possible, for once it is buried, the quality of the evidence degrades and retrieving it becomes more costly and difficult.

Collect and Package Physical Evidence

- ✓ Physical evidence must be handled and processed in a manner that prevents damage, or cross-contamination.
- ✓ The integrity of evidence is best ensured when kept in the condition it is found at the crime scene.
- ✓ Trace evidence should not be removed from the item it is found on unless absolutely necessary

Blood Stains must be either be:

- ✓ Scraped off the surface**
- ✓ Transferred to a moistened swab**
- ✓ Cut out of the area bearing the stain, i.e. carpet swatch**

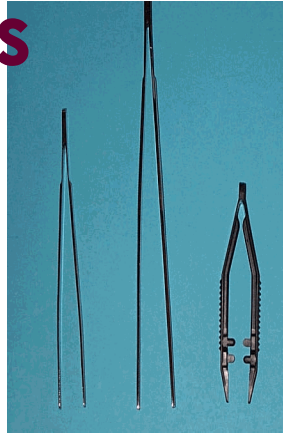
The collection of blood evidence must take into account the possibility of purification. The correct procedure for the collection of blood will be discussed in the next chapter.

Each item collected at different locations must be placed in separate and appropriate containers.

This prevents damage through contact and cross-contamination.

What type of evidence collection supplies are needed?

Forceps Manila Envelops



Screw-on glass vials



Plastic pill bottles

Cardboard pill boxes



~~Do not use regular mailing envelopes as they can lose evidence~~



Moisture and other natural substances are continual threats to the integrity of some evidence.

Blood and clothing must have special consideration when collected in order to prevent damage due to rot, mold, and mildew. Clothes must be air dried before packaging in paper bags and wet blood must be stored in vented containers.

**Charred debris
must be
sealed in an
airtight metal
container in
order to
prevent the
evaporation of
volatile
petroleum
residues.**



PEV
SECURITA

Peel To Expose Adhesive

DO NOT TAMPER DO NOT TAMPER DO NOT TAMPER

• For Forensic testing and to insure a locked pouch, remove the adhesive cover from both flap and bag area and seal together.

CHAIN OF CUSTODY

I, _____ (print) _____ (signature)
provided a urine sample in a sealed container labeled with code
number _____ for SUBSTANCE ABUSE TESTING at _____ (time)
on _____ (date) to _____ (collector sign.)

Ordering Physician: _____
Signature of Courier: _____ Date: _____ Time: _____
Received in Lab by: _____ Date: _____ Time: _____
Bottle Sealed: _____ Yes _____ No
Seal Broken and Tested by: _____
Date: _____ Time: _____

Additional Transfers:

From: _____ Date: _____ Time: _____
Reason: _____
To: _____ Date: _____ Time: _____
From: _____ Date: _____ Time: _____
Reason: _____
To: _____ Date: _____ Time: _____

Chain of Custody

it refers to the chronological documentation showing the seizure, custody, control, transfer, analysis, and disposition of evidence.

Must be established whenever evidence is presented in court as an exhibit.

**Adherence to standard procedures
in: recording the location of
evidence marking it for
identification,**

**and properly
completing evidence submission
forms for lab analysis**

**Are the best guarantee that the
evidence will withstand inquiries of
what happened to it from the time of
its finding to its presentation in court**

The examination of evidence often requires comparison with a known standard or control.

Standard/Reference sample is physical evidence whose origin is known and that can be compared to crime-scene evidence.

The control specimens must be treated with the same care as crime scene evidence in order to prevent damage.

How evidence is submitted to the crime lab will depend on:

- ✓ **The distance the agency needing the forensic evaluation is from the crime lab.**
- ✓ **The type of material needing to be tested.**
- ✓ **Personal delivery – Necessary for items not allowed to be shipped through the mail. This process can also facilitate any discussions between the investigator and the technician.**
- ✓ **Shipped – distance away**

Most laboratories require that an evidence submission form accompany all evidence submitted.

Proper completion of this form will enable the lab analyst to make an intelligent and complete examination of the evidence.

Providing a brief description of the case history will aid in the examination of the specimens in a logical sequence, help make comparisons, and facilitate the search for trace evidence.

✓ Delineate the particular kind of examination requested for each type of evidence. However, the analyst may not do the ones you want or others you may not have anticipated - its all based on the evidence.

✓ Provide a list of items submitted with each item packaged separately and assigned a number or letter listed in an orderly or logical

Crime Scene Safety

Precautions should be taken by investigators to avoid contact with potentially infectious bodily fluids while examining a crime scene.

- ✓ Wear latex gloves and protective shoe covers.
- ✓ Wear a particle mask/respirator, goggles, or face shield in scenes with air born particles
- ✓ Beware of sharp items – knives, razors, syringes, etc.

- ✓ Red biohazard waste receptacle should be available at scenes with potential biohazardous conditions
- ✓ Use new, uncontaminated gloves to take notes in order to avoid contaminating pens, note pad, etc.
- ✓ If contamination occurs, disinfect with 10% bleach solution
- ✓ No eating, drinking, make-up application, etc. is to be done on the scene

Removal of any evidence must be according to the Fourth Amendment privileges.

The need for a warrant for search and seizure.



Justifications for a warrantless search:

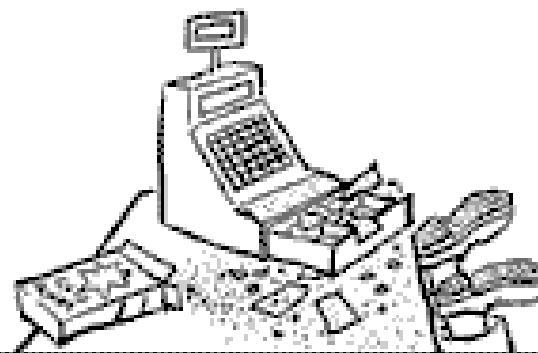
1. The existence of emergency circumstances
2. The need to prevent the immediate loss or destruction of evidence
3. A search of a person and property within the immediate control of the person provided it is made incident to a lawful arrest
4. A search made by consent of the parties involved

DO YOU HAVE ANYTHING THAT REMOVES
ALL CLUES LINKING SOMEONE TO THE
SCENE OF A CRIME?

YES, SIR. "EVID-AWAY"
-SPRINKLED AT THE
CRIME SCENE, REMOVES
ALL LINKS WITH THE
CRIMINAL!

SHOP

SHOP



THE END

