

# LABORATORY #3 EVIDENCE COLLECTION

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## CHAPTER OUTLINE

### 3.1 Evidence Collection

### 3.2 Laboratory Exercise: Evidence Packaging

## LEARNING OBJECTIVES

- Understand the various search techniques for indoor and outdoor scenes
- Describe items for submission as evidence
- Comprehend the crime scene forms for evidence collection

## WHAT YOU WILL LEARN

Laboratory #3, Evidence Collection, introduces the student to various search techniques used for both indoor and outdoor scenes. Evidence submission and chain of custody forms are included with completed forms to use as a guide. The need for descriptions of evidence is explained with examples on how to uncover possible evidence at crime scenes. The chapter ends with a laboratory exercise to show proficiency with completing the required paperwork for evidence collection, evidence packaging, and chain of custody.

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## KEY TERMS

chain of custody  
grid search  
lane search  
spiral search  
zone search

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## CASE FILE 00-123456

The police arrived at the scene in response to the 911 call placed by Lynette Saunders, a dog walker for the Ashley family, and found two deceased individuals in the master bedroom. The two victims were presumed to be William and Jane Ashley, the owners of the residence. The first responding officers contacted detectives and crime scene technicians to further investigate the crime and process the scene.

The Ashley residence was fully processed for potential evidence associated with the double homicide. The crime scene technicians flagged evidence after completing a full search of both the inside and the outside of the scene, and the photography of each piece of evidence has been completed.

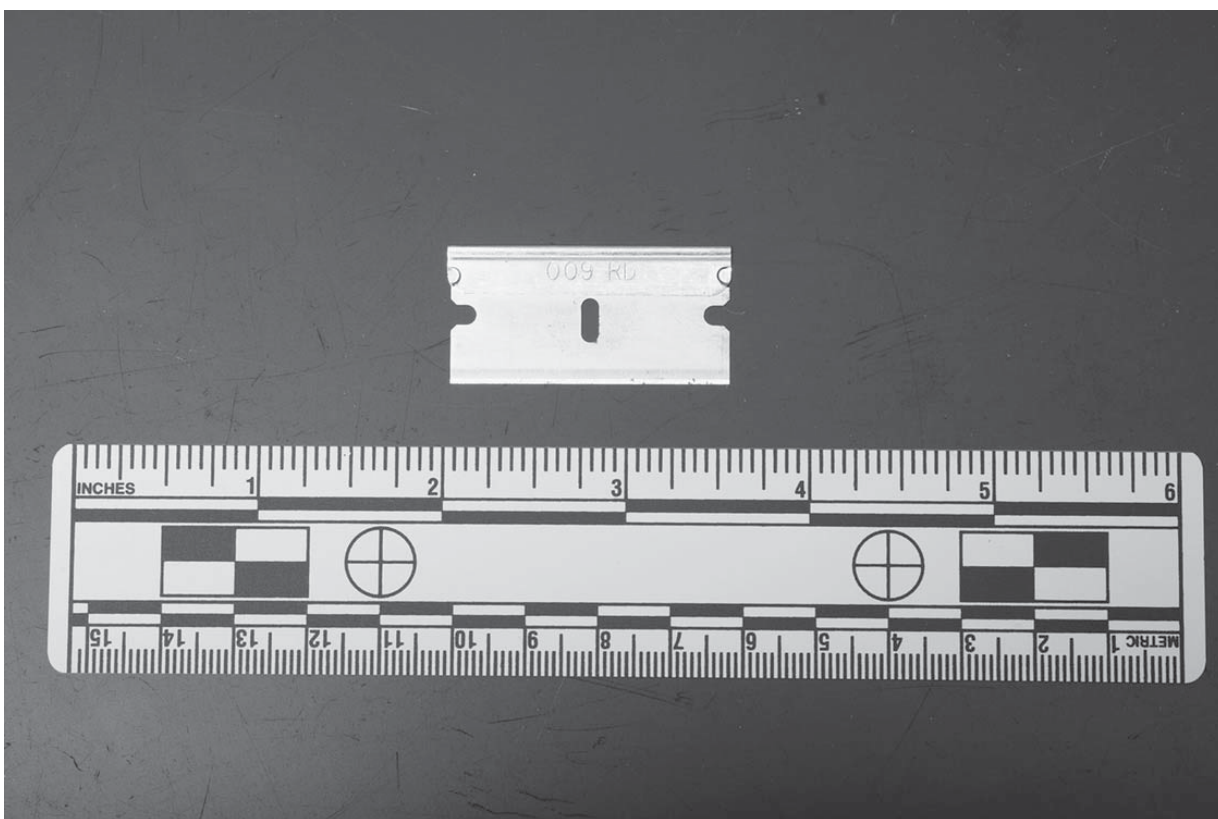
For review, the crime scene technicians found the following evidence at the crime scene:

- Multiple fingerprints located around the house and in the master bedroom
- Footwear impressions in blood located in the master bedroom and upstairs hallway
- Footwear impressions located outside the rear entrance to the Ashley residence
- Tool mark impressions on the outside of the rear entrance to the Ashley residence
- Red stains presumed to be blood located on the outside front stoop of the Ashley residence
- One blank pad of paper recovered from the kitchen counter
- Cigarette butts found outside at the rear of the Ashley residence
- One crowbar recovered from the master bedroom
- Two cartridge casings recovered from the master bedroom floor
- Multiple hairs and fibers recovered from locations throughout the master bedroom
- Small piece of glass recovered from the master bedroom carpet
- Glass fragments located in the back hallway of the Ashley residence
- Small plastic bag containing a white powdery substance found in the front hallway floor
- Three empty pill bottles found on the upstairs hallway floor
- One pill bottle containing eight small white tablets located outside in the bushes of the Ashley residence
- One cell phone found in the hallway.

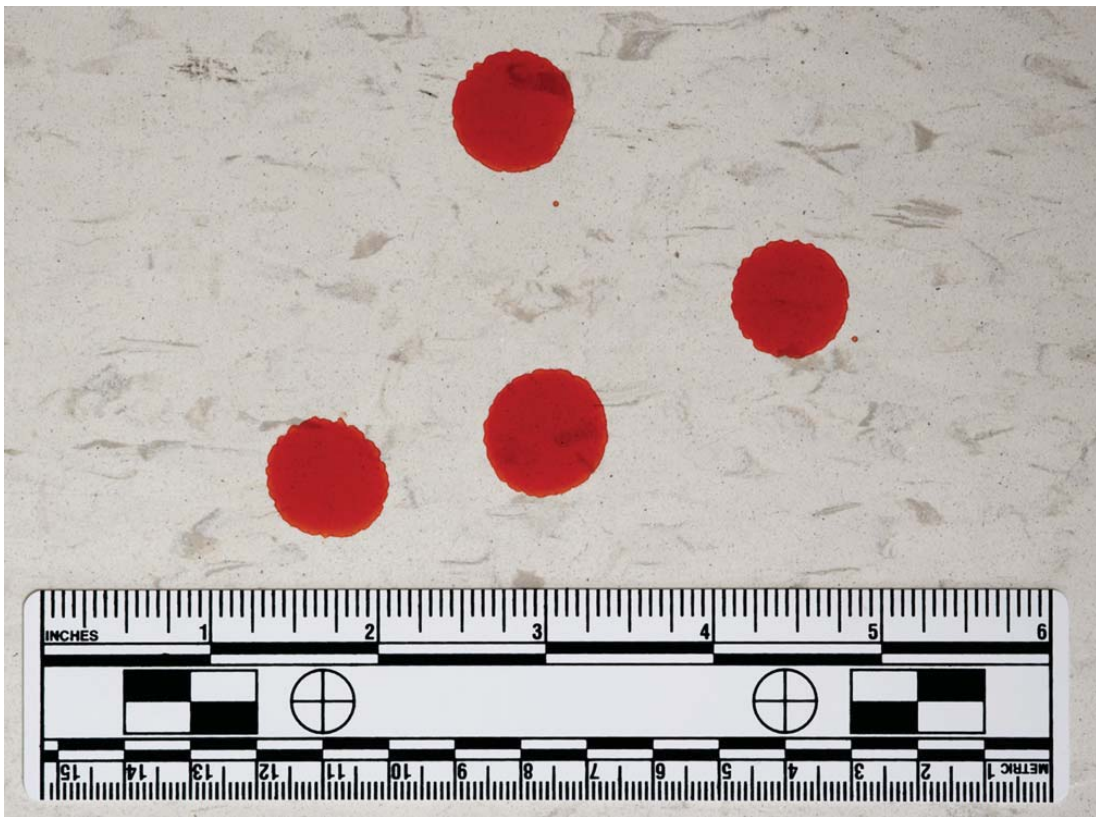
Examples of evidence recovered at the Ashley homicide:



Sunglasses.



Razor blade.



Blood.

<b>EVIDENCE COLLECTION FORM</b>		Case # <b>00-123456</b>	
TYPE OF CRIME <b>HOMICIDE</b>		DATE / TIME DATE/TIME	REPORT COMPLETED BY YOUR NAME
PROPERTY STATUS:  <input checked="" type="checkbox"/> Evidence <input type="checkbox"/> Recovered <input type="checkbox"/> Stolen <input type="checkbox"/> Found <input type="checkbox"/> Safekeeping <input type="checkbox"/> Hold (Unit): <input type="checkbox"/> Other:			
Name (If Known)		Sex Race DOB	Address
Victim: <b>JANE ASHLEY</b>		<b>FEMALE, CAUC., DOB – UNK</b>	<b>LIST ADDRESS OF INCIDENT</b>
Suspect: <b>UNKNOWN</b>		<b>UNKNOWN</b>	<b>UNKNOWN</b>
Item Number	Quantity	Describe Items (Use as much detail as possible)	
1	1	ONE EMPTY MARLBORO CIGARETTE PACKAGE	
2	1	ONE BLUE BIC LIGHTER	
3	2	TWO S&W 9MM CARTRIDGE CASINGS	
4	1	ONE CLEAR PLASTIC BAG CONTAINING A WHITE POWDERY SUBSTANCE	
Place the Item Number(s) From Above to designate the Examination Requested:		Check box if additional items are on an additional form: <input type="checkbox"/>	
Document Examination	Drug Chemistry <b>4</b>	Digital Evidence	Toxicology
Tool marks	Hairs and Fibers	Fingerprints <b>1, 2, 4</b>	Footwear / Tire Impressions
Glass	Biology (Blood Typing, DNA)	Documents	Other ( <b>FIREARMS</b> ) <b>3</b>
Narrative/Notes:			

Evidence collection form.

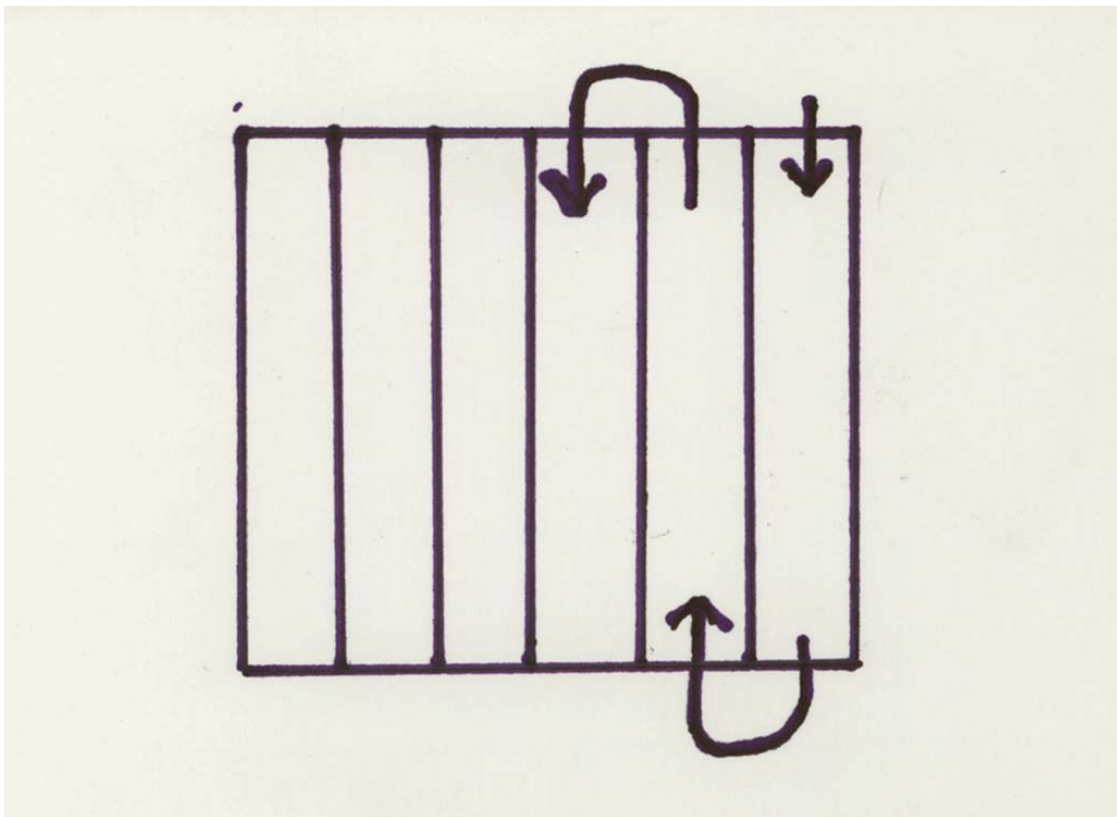
CHAIN OF CUSTODY FORM				CASE #	
				00-123456	
Chain of Custody					
ITEM NUMBER	QUANTITY	PERSON WHO COLLECTED EVIDENCE:	WHERE EVIDENCE WAS DELIVERED TO:	DATE	TIME
14	5	OFFICER BROWN	POLICE DEPARTMENT EVIDENCE LOCKER	DATE	TIME
ADDITIONAL CASE INFORMATION					

Chain of custody form.

## EVIDENCE COLLECTION

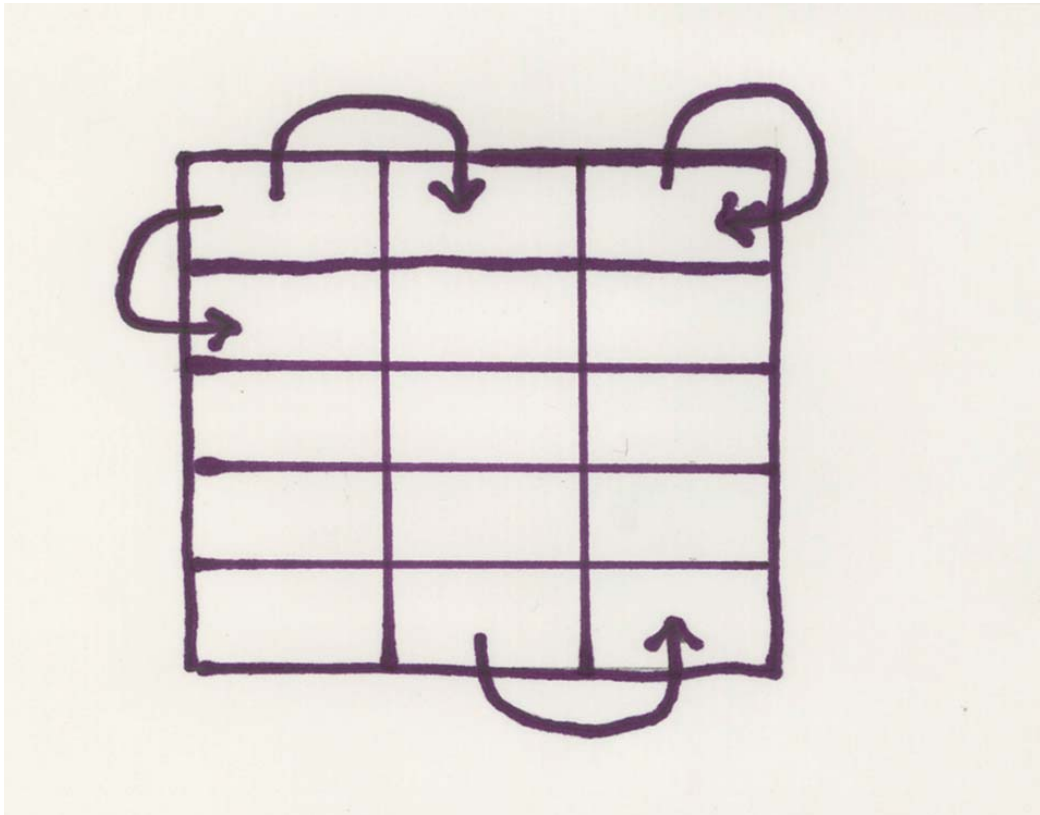
Evidence located at the crime scene must first be uncovered using search techniques and then flagged for photography. Once the midrange and close-up images of the evidence have been completed, the evidence technician can collect the items for proper packaging and submission to an evidence storage locker or the forensic laboratory.

Various search techniques are used depending on the type of scene, such as whether the crime scene is located inside or outside. A line search can be used with one or more crime scene technicians where each person walks shoulder to shoulder in a straight line covering either a short or a long distance. A line or

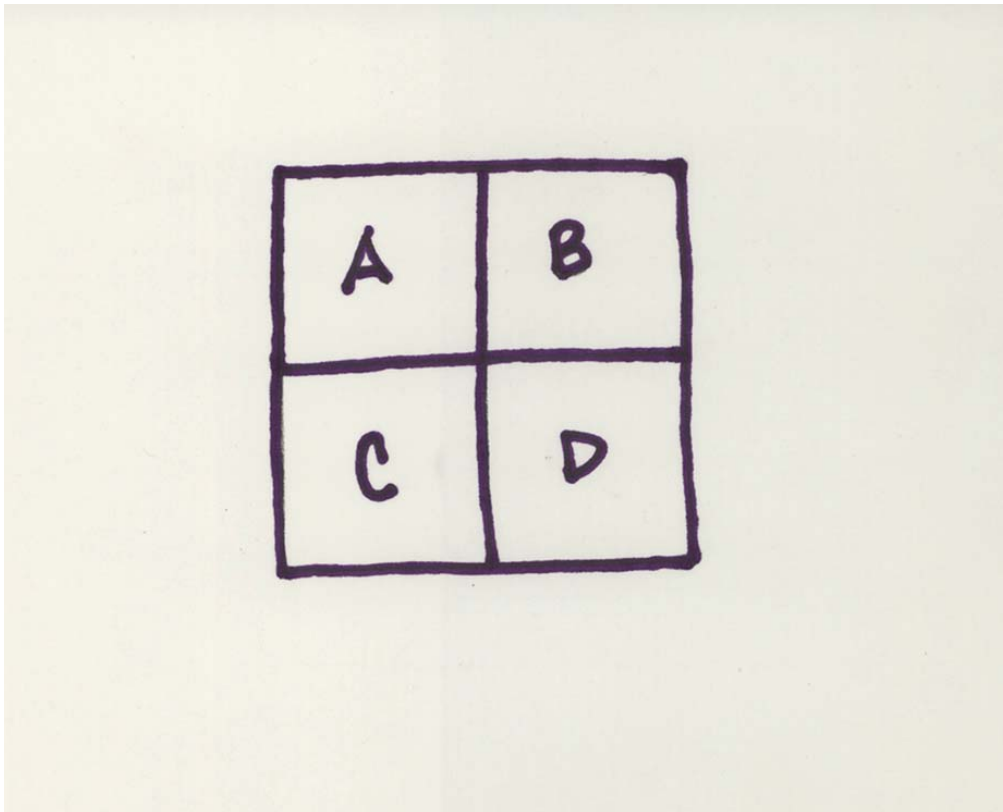


Line search sketch.





Grid search sketch.



Zone search sketch.





Spiral search sketch.

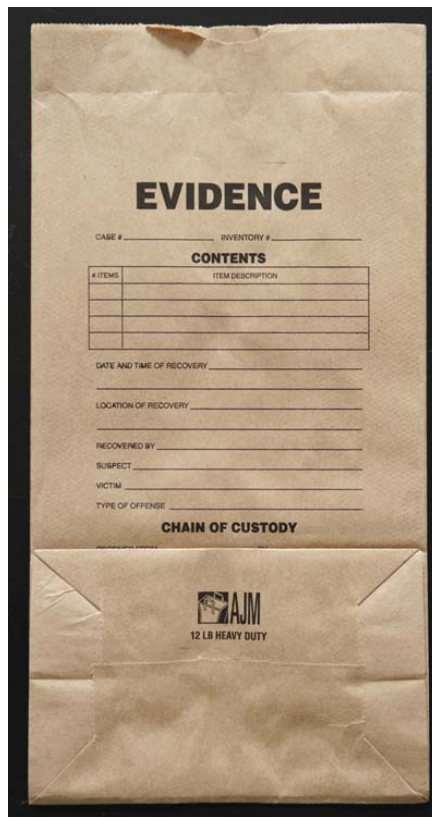
strip search covers the territory of the crime scene once as each individual walks the entire length of the scene.

A grid search is a double line search where individuals walk the entire length of a scene twice, moving north to south and then east to west. A benefit of the grid search is that the area is searched twice, which can be a more thorough method to locate minute or trace evidence in an outdoor scene.

A zone search divides the scene into multiple quadrants, which allows one individual to apply a search technique to a smaller area. The zone search method works well for large outdoor scenes that may have an abundance of evidence or victims.

A spiral search works either from the outside of the crime scene perimeter to the center or from the center of the scene to the outside perimeter. The individual searches the scene in a spiral fashion; a downside to this search technique is that evidence can be missed if the person does not overlap each circling of the scene.

The evidence must be collected and packaged properly to prevent contamination and later exclusion from court. Each piece



Paper evidence bag.

of evidence must be packaged separately depending on the type of evidence and labeled with a description of the item and initials of the crime scene technician sealing the package. Most types of evidence can be secured using a paper bag, which allows the item to breathe and not retain moisture, which can cause mold and mildew to grow. Some types of evidence can be secured using a plastic bag, as the material within the bag should remain visible so damage does not occur during storage. Sharp or breakable evidence can be secured using a box and tie downs to prevent movement.

Once the evidence is secure in the packaging, the bag, box, or tube must be sealed to prevent contamination and a chain of custody form must be completed to track the people who handle the evidence from the crime scene to court. Evidence packaging must be sealed using tape or a heat sealer, and information pertaining to the evidence technician must be written over the seal. The initials of the investigator or evidence technician, the date, and the time of evidence collection are written in permanent marker across the seal to ensure the chain of custody.

**EVIDENCE**  
SUBMITTING RECEIPT: TEAR ALONG LINE AND RETAIN FOR YOUR RECORDS  
CONTROL NUMBER: 4577433

Case #: \_\_\_\_\_ Item #: \_\_\_\_\_ Description: \_\_\_\_\_  
Bag Sealed By: \_\_\_\_\_ Date Sealed: \_\_\_\_\_

↑ Adhesive Line ↑  
CONTROL NUMBER: 4577433

**EVIDENCE**  
PEEL BLUE RELEASE LINER, THEN SEAL BAG BY PRESSING DOWN ON ADHESIVE LINE.  
DO NOT USE THIS BAG WITH EVIDENCE THAT HAS WET OR DAMP BODY FLUIDS.

Submitting Agency: \_\_\_\_\_  
Case #: \_\_\_\_\_ Item #: \_\_\_\_\_  
Description of Enclosed Evidence: \_\_\_\_\_  
Description of Offense: \_\_\_\_\_  
Victim's Full Name: \_\_\_\_\_  
Suspect's Full Name: \_\_\_\_\_  
Evidence Recovered By: \_\_\_\_\_  
Evidence Bag Sealed By: \_\_\_\_\_  
Date Sealed: \_\_\_\_\_ Time Sealed: \_\_\_\_\_ AM PM  
Phone #: \_\_\_\_\_ Cell #: \_\_\_\_\_ Fax #: \_\_\_\_\_

**CHAIN OF CUSTODY**

FROM	TO	DATE

**FOR CRIME LAB ONLY**  
CONDITION OF EVIDENCE BAG UPON RECEIPT AT LAB:  SEALED  OTHER: \_\_\_\_\_  
CRIME LAB CASE #: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_  
OPENED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
NOTES: \_\_\_\_\_

CUT HERE TO OPEN

Plastic evidence bag.

Finally, the packaged evidence must be listed on an evidence submission form and chain of custody document before it can be submitted to a police department evidence locker or the forensic laboratory for further processing. The evidence must be documented properly and described accurately on the paperwork. It is up to the investigator when requesting forensic evidence processing at the crime laboratory to select what needs to be documented, such as latent prints, DNA, or footwear.

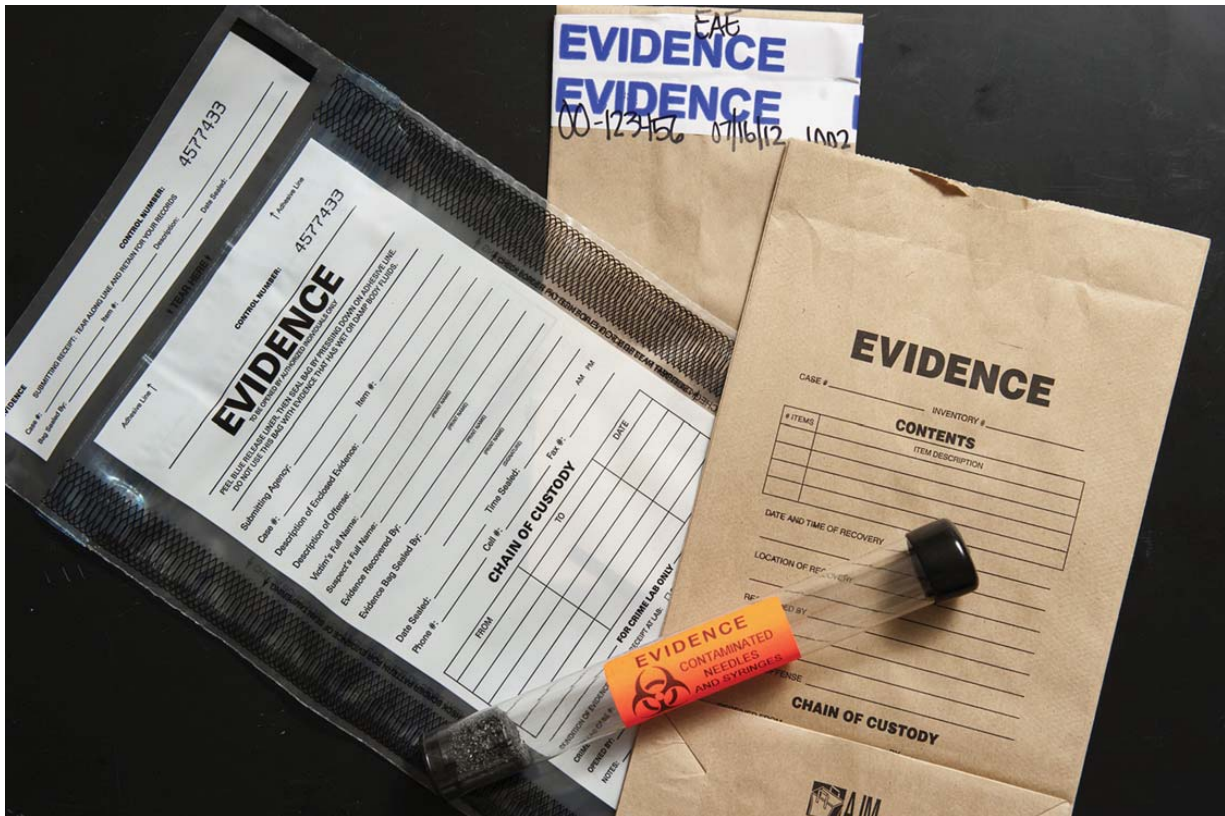
## PRELAB ACTIVITY REVIEW AND PRACTICE

### Define the Following Terms

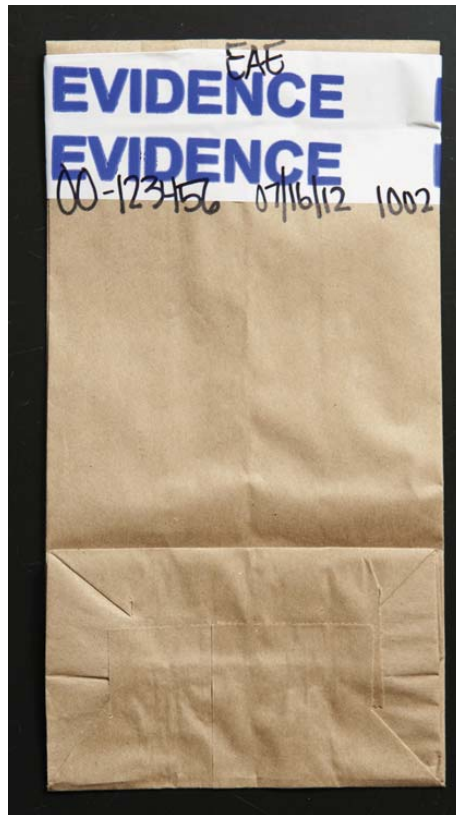
chain of custody  
grid search



Evidence tube.



Evidence collection materials.



Evidence collection bag.

lane search  
spiral search  
zone search

## Practice Exercise

Select three pieces of evidence recovered at the Ashley residence and practice describing the evidence so another classmate can visualize it. The description on the submission form will assist the investigator with remembering the evidence at a later date, such as during court testimony, and will assist with descriptions during the trial.

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# 3.2

## LABORATORY EXERCISE: EVIDENCE PACKAGING

### CLASSROOM AND ONLINE INSTRUCTIONS

**Classroom Course**—If you are completing Laboratory #3 in a classroom setting, use three pieces of evidence from around the classroom. Pretend that a crime has taken place, such as a theft of a backpack, and select pieces of evidence that could be associated with this type of crime. Because you are inside at a classroom crime scene setting, make sure you practice the appropriate search technique.

**Online Course**—If you are completing Laboratory #3 in an online course, use three pieces of evidence from around the house. Pretend that a crime has taken place, such as a burglary, and select pieces of evidence that could be associated with this type of crime. You can also practice the search techniques associated with both an indoor and an outdoor setting.

### Materials Needed

- Pen
- Three items that can be used as evidence

### The Exercise

1. Select three pieces of evidence (these can be the same pieces of evidence used during the photography lab)—be creative!
2. Using the blank evidence submission form located in the appendix, complete one submission form and describe each piece of evidence accurately and select the forensic science discipline requests.
3. Using the blank chain of custody form located in the appendix, complete one chain of custody form in order to secure and store the evidence accurately for future analysis.