

Directions: Take out one piece of paper and watch the video carefully. Follow the instructions shown in the video to make a druggist fold with your piece of paper.

Then answer the questions below:

- 1.
- 2.



www.youtube.com/watch?v=j1NMJUuRZMU

Get Started Immediately!

1.7: Searching For/Collecting Evidence (2)

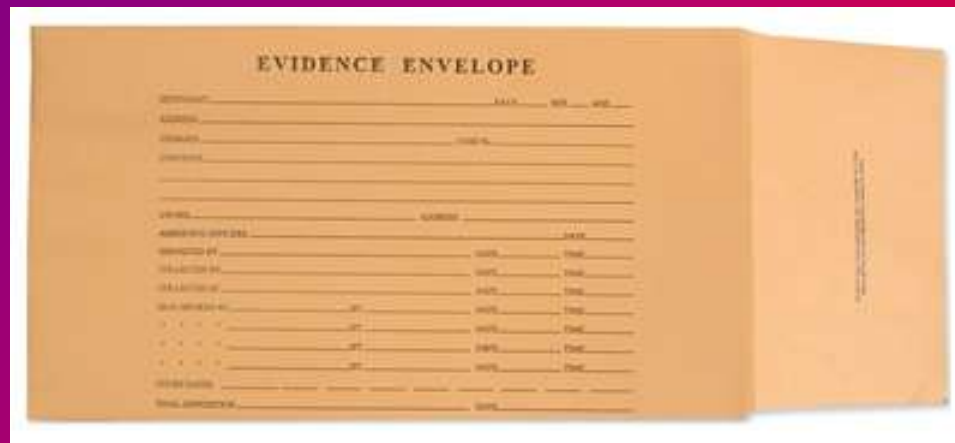
SFS1- Recognize and classify various types of evidence in relation to the definition and scope of Forensic Science:

- c. Determine the proper techniques to search, isolate, collect and record physical and trace evidence,
- d. Evaluate the relevance of possible evidence at the site of an investigation,
- e. Organize relevant information to accurately develop and submit both scene and analysis reports

9/13/13

Part IV: Tools for Evidence Collection

- the well-prepared evidence collector arrives at a crime scene with a large assortment of **packaging materials** and **tools**, ready to encounter any type of situation:
 - **forceps** (tweezers) and similar tools may have to be used to pick up small items
 - unbreakable **plastic pill bottles** with pressure lids are excellent containers for hairs, glass, fibers, and various other kinds of small or trace evidence
 - manila envelopes, screw-cap glass vials, or cardboard pillboxes are also adequate containers for most trace evidence encountered at crime sites



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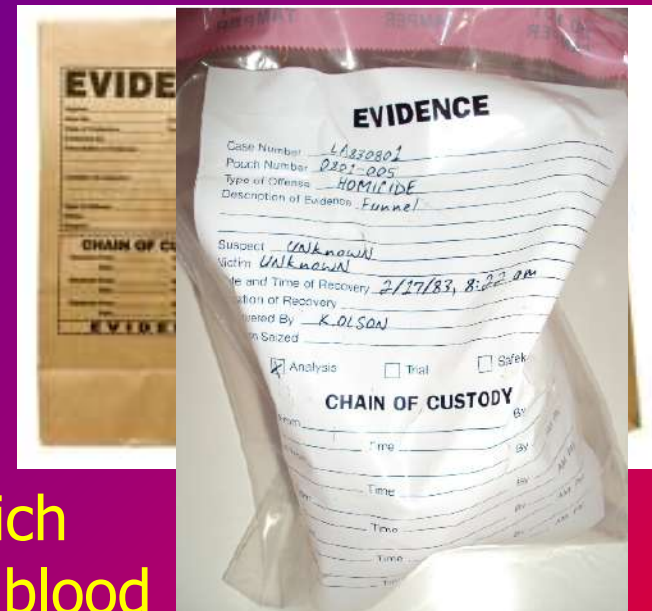
- **ordinary mailing envelopes** should not be used as evidence containers because powders and fine particles will leak out of their **unsealed** corners
- small amounts of trace evidence can also be conveniently packaged in a carefully folded paper, using what is known as a "**druggist fold**."
 - fold one end of the paper over one-third, then fold the other end (one-third) over that
 - repeat the process from the other two sides



- small amounts of trace evidence can also be conveniently packaged in a carefully folded paper, using what is known as a “**druggist fold**.”
 - fold one end of the paper over one-third, then fold the other end (one-third) over that
 - repeat the process from the other two sides
 - after the paper is folded in this manner, tuck the outside two edges into each other
 - this produces a **closed container** that keeps the specimen from falling out
- **guidelines** for packaging of evidence:
 - for **bloodstained** materials, wrapping paper, manila envelopes, or paper bags are used



- **guidelines** for packaging of evidence:
 - for **bloodstained** materials, wrapping paper, manila envelopes, or paper bags are used
 - in **airtight** containers, the accumulation of moisture may encourage the growth of mold, which can destroy the evidential value of blood
 - all items of **clothing** are air-dried and placed individually in separate paper bags to ensure constant circulation of air through them
 - **charred debris** recovered from the scene of a fire is sealed in an airtight container to prevent the evaporation of **volatile** petroleum residues



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 - new paint cans or tightly sealed jars are recommended
- a detailed description of the proper collection and packaging of various types of physical evidence is summarized in the **evidence guide** found in **Appendix I** (pages 700 – 711)

**SELF-CHECK
QUESTIONS!**

*Why should ordinary
mailing envelopes not be
used for evidence?*

unsealed corners
(powders and fine particles
can leak out)

*A new paint can would
be a good container
what sort of evidence?*

arson evidence
(charred debris)

- **charred debris** recovered from the scene of a fire is sealed in an airtight container to prevent the evaporation of **volatile** petroleum residues
 - new paint cans or tightly sealed jars are recommended
- a detailed description of the proper collection and packaging of various types of physical evidence is summarized in the **evidence guide** found in **Appendix I** (pages 700 – 711)

Part V: Maintaining the Chain of Custody

- continuity of possession, or the **chain of custody**, must be established whenever evidence is presented in court as an exhibit
- **chain of custody** = a list of all the people who came into possession of an item of evidence

EVIDENCE

Agency: _____

Item No.: _____ Case No.: _____

Date of Collection: _____ Time of Collection: _____

Collected By: _____

Description of Evidence: _____

Location of Collection: _____

Type of Offense: _____

Victim: _____

Suspect: _____

CHAIN OF CUSTODY

Received From: _____ By: _____

Date: _____ Time: _____

Received From: _____ By: _____

Date: _____ Time: _____

Received From: _____ By: _____

Date: _____ Time: _____

- **chain of custody** = a list of all the people who came into possession of an item of evidence
 - to ensure evidence will withstand inquiries how it was handled, adherence to **standard procedures** is required when:
 - recording the **location** of evidence,
 - marking it for **identification**, and
 - properly completing evidence **submission** forms
 - this means that **every** person who handled/examined the evidence must be accounted for
 - failure to substantiate the evidence's chain of custody may lead to serious questions regarding the **authenticity** and **integrity** of the evidence and examinations of it

EVIDENCE	
Agency: _____	Case No.: _____
Item No.: _____	Time of Collection: _____
Date of Collection: _____	Collected By: _____
Description of Evidence: _____	

Location of Collection: _____	

Type of Offense: _____	
Victim: _____	
Suspect: _____	
CHAIN OF CUSTODY	
Received From: _____	By: _____
Date: _____	Time: _____
Received From: _____	By: _____
Date: _____	Time: _____
Received From: _____	By: _____
Date: _____	Time: _____

- failure to substantiate the evidence's chain of custody may lead to serious questions regarding the **authenticity** and **integrity** of the evidence and examinations of it
- all items of physical evidence should be carefully packaged and marked upon their retrieval at crime sites to avoid destroying their evidential value or restricting the number and kind of examinations to which they may be subjected by the criminalist
 - if at all possible, the **evidence itself** should be marked for identification (the collector's **initials** and the **date** of collection are inscribed directly on the article)
 - when appropriate, the evidence is **tagged** for identification
 - evidence in sealed containers (in a box, bag, vial, or can) is marked on the container
 - records should show the collector's **initials, location** of the evidence, and collection **date**

- records should show the collector's **initials**, **location** of the evidence, and collection **date**
- if the evidence is turned over to **another individual** for care or delivery to the lab, this transfer must be recorded in notes and other appropriate forms
 - in fact, **every individual who possesses the evidence** must maintain a written record of its acquisition and disposition
 - frequently, all of the individuals involved in the collection and transportation of evidence may be requested to **testify** in court
 - to avoid confusion and to retain complete control of the evidence at all times, the chain of custody should be kept to a **minimum**



**SELF-CHECK
QUESTION!**

***True or False: Labels can
be placed directly on
evidence.***

**True,
if circumstances allow it**

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Part VI: Obtain Standard/Reference Samples

- the examination of evidence, whether soil, blood, glass, hair, fibers, and so on, often requires comparison with a known **standard/reference sample**
- **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

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 - an investigation of a hit-and-run incident might require the removal of reference **paint** from a suspect vehicle (to compare to paint recovered at the scene)
 - **hair** found at the crime scene will be of optimum value only when compared to reference hairs removed from the suspect and victim
 - **bloodstained** evidence must be accompanied by a whole-blood or buccal swab reference sample obtained from all victims and suspects
 - **buccal swab** = a swab of the inner cheek, performed to collect cells for use in determining the DNA profile of an individual

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- the **quality** and **quantity** of standard/reference specimens often determine the evidential value of crime-scene evidence
- some types of evidence must also be accompanied by the collection of **substrate controls**
- **substrate controls** = uncontaminated surface material close to an area where physical evidence has been deposited
 - used to ensure the surface on which a sample has been **deposited** does not interfere with lab tests—for example:

- used to ensure the surface on which a sample has been **deposited** does not interfere with lab tests--for example:
 - at **arson** scenes, if an investigator suspects that a particular surface has been exposed to gasoline or some other accelerant, the investigator should also collect a piece of the same surface material that is believed not to have been exposed to the accelerant
 - for **bloodstained** evidence, unstained areas close to the stain may be sampled for the purpose of determining whether the material have an impact on lab results
- thorough collection and proper packaging of standard/reference specimens and substrate controls are the mark of a skilled forensic technician



**SELF-CHECK
QUESTIONS!**

*A buccal swab is taken
from the cheek of the
victim/suspect.*

***True or False:
Substrate controls
contain evidence.***

False

- thorough collection and proper packaging of standard/reference specimens and substrate controls are the mark of a skilled forensic technician

Part VII: Submitting Evidence to the Laboratory

- evidence is usually submitted to the laboratory either by **personal delivery** or by **mail**
- the method of transmittal is determined by the **distance** the submitting agency must travel to the laboratory and the **urgency** of the case
 - if the evidence is **delivered personally**, the deliverer should be familiar with the case, to facilitate any discussions between lab personnel and the deliverer concerning specific aspects of the case
 - if desired, most evidence can be **shipped by mail**

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 - postal regulations restrict the shipment of certain chemicals and live ammunition and prohibit the mailing of explosives
 - evidence must be carefully packaged in order to prevent breakage or other accidental destruction while is in transit to the lab
- most labs require an **evidence submission form** on all evidence submitted:

STATE CRIME LABORATORY

P.O. BOX 5274

Number 3 Natural Resources Drive

Little Rock, Arkansas 72215

EVIDENCE SUBMISSION FORM

2123

Please complete entire form

FOR LABORATORY USE ONLY

Inv. Officer: Det. Sgt. Mike Allen		Agency Case #		Lab Case #:	
Agency: West Memphis Police Dept.		93-05-0666		93-05716	
Street Address: 100 Court Street		Date of Offense		How Evidence Rec'd:	
City: West Memphis, Arkansas		Type of Offense		H/C	
Zipcode: 72301		Homicide			
Telephone: 501-735-1210					
Suspect(s)	DOB	RACE	SEX	Victim(s)	DOB RACE SEX
Miss Kelly				Byers	
Echols				Moore	
Baldwin				Branch	
Has any evidence been previously submitted to this lab on this case? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Location (City, County)		Circle as needed	
		West Memphis/Crittenden		<input type="checkbox"/> Documents <input type="checkbox"/> Drug Analysis <input type="checkbox"/> Firearms/Toxicology <input type="checkbox"/> Latent Prints <input type="checkbox"/> Medical Examiner <input type="checkbox"/> Serology <input type="checkbox"/> Toxicology <input type="checkbox"/> Trace Evidence <input type="checkbox"/> Visual Communications	
Item #	List and describe all evidence being submitted in this area:				
E-169	1 Black Handled survival type knife ,Blade length approximately 9 inch, handle approximately 5 inch in length. Det.Sgt.Mike Allen marked (M.Allen 11/17/93) on handle. See Attached sheet location date & time item E-169 located.				
<div style="text-align: center;"> <p>WEST MEMPHIS POLICE</p> <p>CONFIDENTIAL</p> <p>COPY TO PROSECUTOR</p> <p>11-19-93</p> </div>					
(continue on back)					
Type of analysis Requested:					
Compare with any marks on bodys of victims to see if this could be the weapon used. Check for fibers, latent prints, The knife has a tube in handle check in tube for any items and if any items check latent prints, fibers, serology.					
Summary of Crime:					
Triple Homicide of Byers/Moore/Branch					

001

RECEIVED
93 NOV 18 AM 8 49
STATE CRIME LABORATORY

- if desired, most evidence can be **shipped by mail**
 - postal regulations restrict the shipment of certain chemicals and live ammunition and prohibit the mailing of explosives
 - evidence must be carefully packaged in order to prevent breakage or other accidental destruction while is in transit to the lab
- most labs require an **evidence submission form** on all evidence submitted:
 - when properly completed, its information will enable the lab analyst to make an intelligent and complete examination of the evidence
 - particular attention should be paid to providing the lab with a **brief description of the case history**—this information will allow the examiner to analyze the specimens in a logical sequence and make the proper comparisons, and it will also facilitate the search for trace quantities of evidence

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- the particular **kind of examination requested** for each type of evidence is to be requested on the form, but the analyst is not be bound to adhere strictly to the specific tests requested by the investigator
- finally, a **list of items submitted** for examination must be included on the evidence submission form—each item is to be packaged separately and assigned a number or letter, which should be listed in an orderly and logical sequence on the form

**SELF-CHECK
QUESTION!**

True or False: Explosive material evidence can be sent through the mail.

False

- particular attention should be paid to providing the lab with a **brief description of the case history**—this information will allow the examiner to analyze the specimens in a logical sequence and make the proper comparisons, and it will also facilitate the search for trace quantities of evidence
- the particular **kind of examination requested** for each type of evidence is to be requested on the form, but the analyst is not be bound to adhere strictly to the specific tests requested by the investigator
- finally, a **list of items submitted** for examination must be included on the evidence submission form—each item is to be packaged separately and assigned a number or letter, which should be listed in an orderly and logical sequence on the form