

CRIME SCENE INVESTIGATION

DESCRIPTION OF SESSION

This session provides participants with an understanding of some of the procedures that are employed during a crime scene investigation.

CATEGORIES

- Exploring: Law Enforcement
- U.S. Department of Education: Law, Public Safety, Corrections & Security

OBJECTIVES

By the end of this session, participants will be able to:

- Explain why it's important to cordon off a crime scene and to limit the number of people entering the scene.
- Discuss the importance of documenting a crime scene.
- Identify and distinguish between the standard methods of documenting a crime scene.
- Define the chain of custody and explain why it's important.
- Differentiate between the three types of photographs taken at a crime scene and explain why each is important.
- Apply proper crime scene photography methods to a mock crime scene.
- Describe the importance of taking scaled photographs.
- Explain the importance of taking notes.
- Conduct note taking at a mock crime scene.
- Prepare a rough sketch and explain how it differs from a finished sketch.
- Demonstrate proper evidence collection and packaging procedures.

SUPPLIES

- (1) computer with internet access

For each group of two or three participants:

- (1) cellphone camera or digital camera
- (3) blank index cards
- (1) Sharpie marker
- (3) evidence bags or blank brown paper bags
- (1) roll of evidence tape (if evidence tape is unavailable, clear packing tape will do)
- (1) 6-inch scale or ruler
- (1) measuring tape
- (1) clipboard
- (1) pencil with eraser
- (1) compass
- (1) note pad
- A variety of proxy evidence items

- “A Visual Guide to Properly Packaging Physical Evidence” (PDF, see below)—one for each participant

PREPARATION

See Activity 6 for suggestions of speakers who could attend the meeting or places where participants could visit, and make arrangements as needed.

WEBSITES

- “Documenting the Crime Scene” (Evidence Technology Magazine): www.evidencemagazine.com/index.php?option=com_content&task=view&id=184—A good overview of different types of crime scene documentation.
- “A Simplified Guide to Crime Scene Photography” (National Forensic Science Technology Center): www.forensicsciencesimplified.org/photo/Photography.pdf—This document thoroughly reviews crime scene photography.
- “The Crime Scene Sketch” (Baltimore County Public Schools): www.bcps.org/offices/science/secondary/forensic/Crimescene%20Sketch.pdf—This document provides an overview of crime scene sketching.
- “Proper Tagging and Labeling of Evidence for Later Identification” (Crime Scene Investigator Network): www.crime-scene-investigator.net/tagging.html—An overview of the information recorded on an evidence bag and the chain of custody.

VIDEOS

Reminder: Any time you use an outside source, be sure you follow the content owner’s or website’s permission requirements and guidelines.

These videos were chosen because they illustrate important aspects of the forensic science discipline being studied in this session. **Note:** Some of the content in the case study is geared toward a mature audience. Advisors should review these videos before showing them to ensure that they are age appropriate for the post.

- “Crime Scene Investigation Techniques” (LoneStar Ranger Academy): www.youtube.com/watch?v=tgtS4wMfZY0—Overview of crime scene investigation.
- “Crime Scene Investigation and Evidence Collection” (Indianapolis–Marion County Forensics Laboratory): www.youtube.com/watch?v=ur1GxXZGnNI—Overview of crime scene investigation.
- “X Marks the Spot: Behind the Scenes With Forensic Scene Investigators” (West Midlands Police): www.youtube.com/watch?v=wri9LXFBBnA—A crime scene investigator processing a mock crime scene.
- *Forensic Files: Dinner and a Movie* (FilmRise): www.youtube.com/watch?v=Zt7Yrq-CenY—Case study.

- “Matthew Welling Trial” (saukvalleynews): www.youtube.com/watch?v=8cDHZS3fBMU—A crime scene investigator testifying in court.

RESOURCES

The following link is to a website that contains information about crime scene investigation. This would be a good resource for Advisors to review if they would like to go into greater depth on this topic.

- Crime Scene Investigator Network: www.crime-scene-investigator.net/—An in-depth resource for all things related to crime scene investigation.

ADVISOR NOTE: Make sure you add time in your activities for viewing and discussing videos with the Explorers. These videos are currently not built into the session plan so you will need to choose those that best complement your activities and plans for this topic.

ADVISOR NOTE: Text in italics should be read aloud to participants. As you engage your post in activities each week, please include comments, discussions, and feedback to the group relating to **Character, Leadership, and Ethics**. These are important attributes that make a difference in the success of youth in the workplace and in life.

ACTIVITIES

Introduction

Say to Explorers: *The work of crime scene investigators is of critical importance. These people are the link between the crime scene and the crime laboratory. Their ability to do their jobs directly affects the evidence that is examined at the forensic science laboratory. The crime scene investigator has several primary tasks: evidence recognition; crime scene documentation, which involves taking digital images, making notes, and sketching the crime scene; and evidence collection and packaging. Each of these tasks is very important and requires considerable knowledge, skill, and attention to detail. Crime scene investigators have to be flexible and be able to work as part of a team. They also have to be able to communicate their work and their findings to a jury and answer questions posed by attorneys. Finally, crime scene investigators need to have a strong, resilient personality. They will regularly encounter unpleasant situations involving extreme violence.*

To provide more background to the Explorers, show one or more of the four videos listed under “Websites” (or other similar videos).

After Explorers have conducted Activities 1-6, debrief as a large group.

Activity 1

Evidence Recognition

- In groups of two or three, have Explorers conceptualize a crime that could have taken place at the post’s meeting location.
- Based on the nature of the crime scene, have one person in each small group come up with three pieces of associated physical evidence. Some examples are:
 - Chewing gum—DNA
 - Soda can—fingerprints
 - Bloodstain—transfer pattern
 - T-shirt—hair and fiber
- That person should place each piece of evidence into the mock crime scene according to the scenario he or she invented. He or she should be able to explain how each piece of evidence is connected to the mock crime scene.

Activity 2

Documentation Through Note Taking

As the other members of the small group walk through the crime scene, they should take detailed notes describing the scene. At minimum, these notes should include the following:

- Date, time, and location of the crime scene
- Location of physical evidence, time it was discovered, by whom it was discovered, and how and by whom it was packaged and marked
- Any other relevant information (condition of the scene, temperature at the scene, lights on or off, unusual smells, etc.)

Activity 3

Documentation Through Photography (Digital Imaging)

Tell Explorers: *There are three types of photographs taken at crime scenes: overall, mid-range, and close-up/examination-quality photographs.*

Explorers should follow these procedures to take photos of the crime scene:

- Using your cellphone or digital camera, take all three types of photographs of the scene in its natural condition; no scales or evidence markers are added to the scene at this point.
- Then fold three index cards in half crosswise and number them 1–3; write the numbers as large and bold as possible so that they can be seen in the photographs.
- Place an evidence marker next to each piece of evidence and take all three types of photographs again.
- Place the 6-inch scale next to each piece of evidence and take close-up photographs; be sure to fill the frame of your phone or camera with the evidence item and scale.

Activity 4

Documentation Through Sketching

Show Explorers the video “Crime Scene Sketch” (David Spencer): <https://vimeo.com/45223797>.

Then, using the rectangular coordinate system, have the groups draw a rough sketch of their mock crime scenes, being sure to include the following:

- Dimensions of the crime scene
- Drawings of significant items in the crime scene (furniture, television, doors, windows, etc.)
- Measurements of evidence from fixed objects
- A legend
- Compass heading designating north

Activity 5

Evidence Collection and Packaging

With the Explorers, review the PDF document titled “A Visual Guide to Properly Packaging Physical Evidence.” Then have Explorers follow these procedures:

- Unless you have actual evidence bags, you will have to write all of the required information on the front of the bag.
- Follow the steps outlined in the document for each piece of evidence.
- After the evidence has been collected, give the bags to a second party and fill out the chain of custody.

Activity 6

Case Study

Show *Forensic Files: Dinner and a Movie* (listed under “Videos”) to the Explorers and discuss how careful investigation helped solve the crime.

Activity 7

Speaker or Visit

If possible, make arrangements for one of the following activities in order to provide Explorers with a real-world look at the profession of forensic science.

- Arrange for a visit to a police department that has a crime scene investigation unit. Ask for a tour of the crime scene investigation vehicle.
- Attend a local trial where a crime scene investigator will be testifying.

ADVISOR NOTE

Some sample questions are below. They are designed to help the participants apply what they have learned to their own interests. You are welcome to use these questions or develop your own questions that relate to your post or specific focus area.

REFLECTION

- *Discuss the possible consequences of not properly securing a crime scene.*

- *Why is it important for the crime scene investigator to know as much about the case prior to entering the scene? From whom do you think they'll get this information?*
- *List each type of documentation and explain why each is important.*
- *Describe the importance of the chain of custody and some potential problems that could arise from its improper maintenance.*
- *What physical and emotional challenges does this type of work present?*
- *How does what you've learned in this session differ from the crime scene investigation or forensic science shows you see on television?*

ADVISOR AND OFFICER REVIEW

After the meeting, address the following:

- Identify what was successful about the meeting.
- Identify what needed improvement.
- Schedule an officer and Advisor planning meeting to prepare for the next post meeting or activity.

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A Visual Guide to Properly Packaging Physical Evidence

Collecting and packaging physical evidence is of great importance in a criminal investigation. Improper packaging and documentation can compromise the evidence and ultimately the case. The following is a step-by-step visual guide on how to properly conduct this task.

Things to Consider Prior to Packaging Evidence:

1. The type of evidence being collected will dictate the type and size of evidence packaging that's used. Paper and cardboard containers are the most common types of packaging used.
2. Evidence that is wet with blood or wet due to environmental conditions will be packaged in plastic until it can be air dried and then transferred to paper or cardboard packaging.
3. Ink is ALWAYS used to write on an evidence bag. NEVER use pencil.

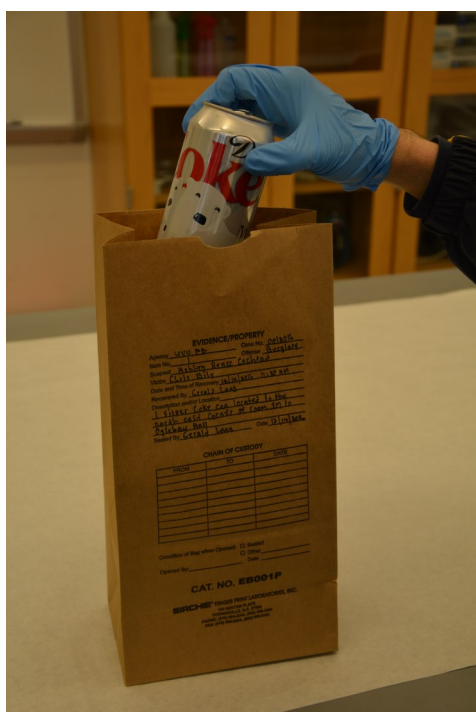
Step 1



Using an ink pen or marker, fill out all of the information on the top half of the evidence bag. This information consists of:

- Agency (name of the investigating agency)
- Case Number
- Item Number (corresponds to marker number)
- Offense, Suspect, and Victim
- Date and Time of Recovery
- Description and/or Location
- Recovered By and Date

Step 2

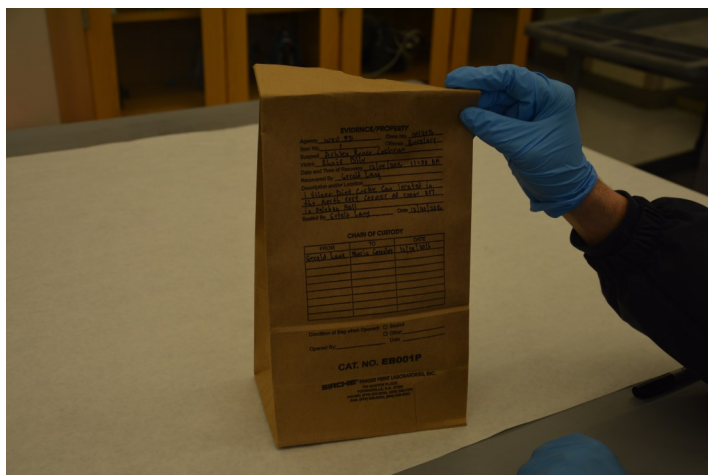


Picking up an item of evidence and placing it into a bag may seem fairly straightforward, but this is not always the case. The simple act of picking up a can, as pictured here, can be destructive to evidence on the can. Prior to handling an item of evidence, ask yourself

- How might this evidence been handled by the perpetrator?
- Will the way I pick evidence up compromise any fingerprints that might be present?
- Is there any other evidence on this can that I should be concerned about such as DNA or trace evidence?

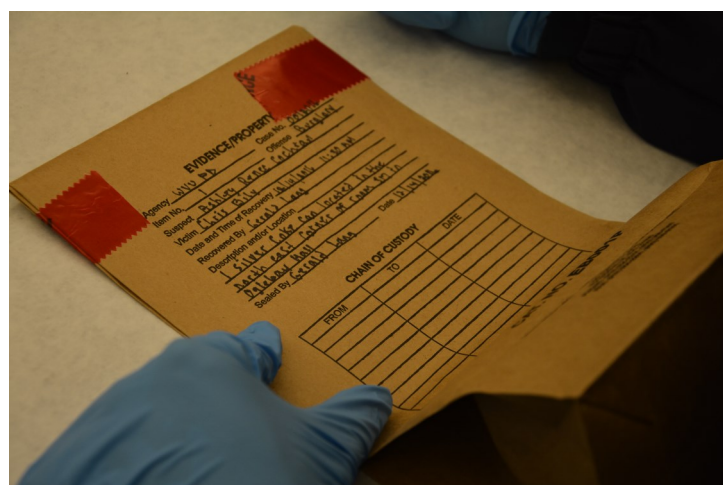
A Visual Guide to Properly Packaging Physical Evidence

Step 3



Fold over the top 1-2 inches of the evidence bag to the back side of the bag.

Step 4



Cut or tear off a piece of evidence tape that is long enough to cover the entire width of the back side of the bag and have enough left over to wrap around to the front of the bag. Remove the backing from the tape and seal the bag. The opening of the bag must be completely sealed so that no material can get into or out of the bag.

Working with evidence tape can be very challenging for a student new to forensic science or crime scene investigation. Evidence tape is designed to be very fragile in order to reveal if tampering with the evidence has occurred. The challenges of dealing with evidence tape becomes compounded when wearing latex or nitrile gloves. It is not uncommon for people that have never worked with this type of tape to tear it or get it entangled with itself. If this happens, start over with a fresh piece of tape. As a result of time and practice, you will develop the dexterity necessary to successfully work with this tape.

While not ideal, any other type of tape can be used for the purposes of this exercise. Clear packing tape, masking tape, or painters tape would be a suitable substitute. Regardless of the type of tape used, all other procedures should be used as outlined in this protocol.

A Visual Guide to Properly Packaging Physical Evidence

Step 5



Initial and date the back of the bag. Your initials and the date must overlap the tape and the bag. The date should consist of the month, day, and year.

Step 6



Eventually this evidence will be turned over to the crime laboratory. The chain of custody is a written record of everybody who has had physical possession of the evidence. When this evidence is given to a second party the chain of custody must be filled out. The person in possession of the bag will place their name in the “From” portion of the chain of custody. The person receiving the evidence will place their name in in the “To” portion of the bag and the date will be recorded. Any time evidence is passed to another person, it is of the utmost importance that the chain of custody is maintained.

More On The Chain of Custody

The chain of custody seems insignificant upon first glance, but it is the most important piece of information on the bag. A laps in the chain of custody can call into question where evidence was and who had possession of it for the undocumented period of time and raise the specter of evidence tampering. This is grounds for rendering the evidence inadmissible at trial. It is not uncommon for a criminal case to have a single piece of evidence. If a defense attorney discovers that the chain of custody hasn't been properly maintained, he or she will make a motion to the have the evidence thrown out. Even if the case hinges on this single piece of evidence (e.g., a fingerprint on a bloody knife or a DNA identification from a sexual assault case) it will likely be thrown out and compromise the ability to prosecute the case.