Chapter 3 The Crime Scene

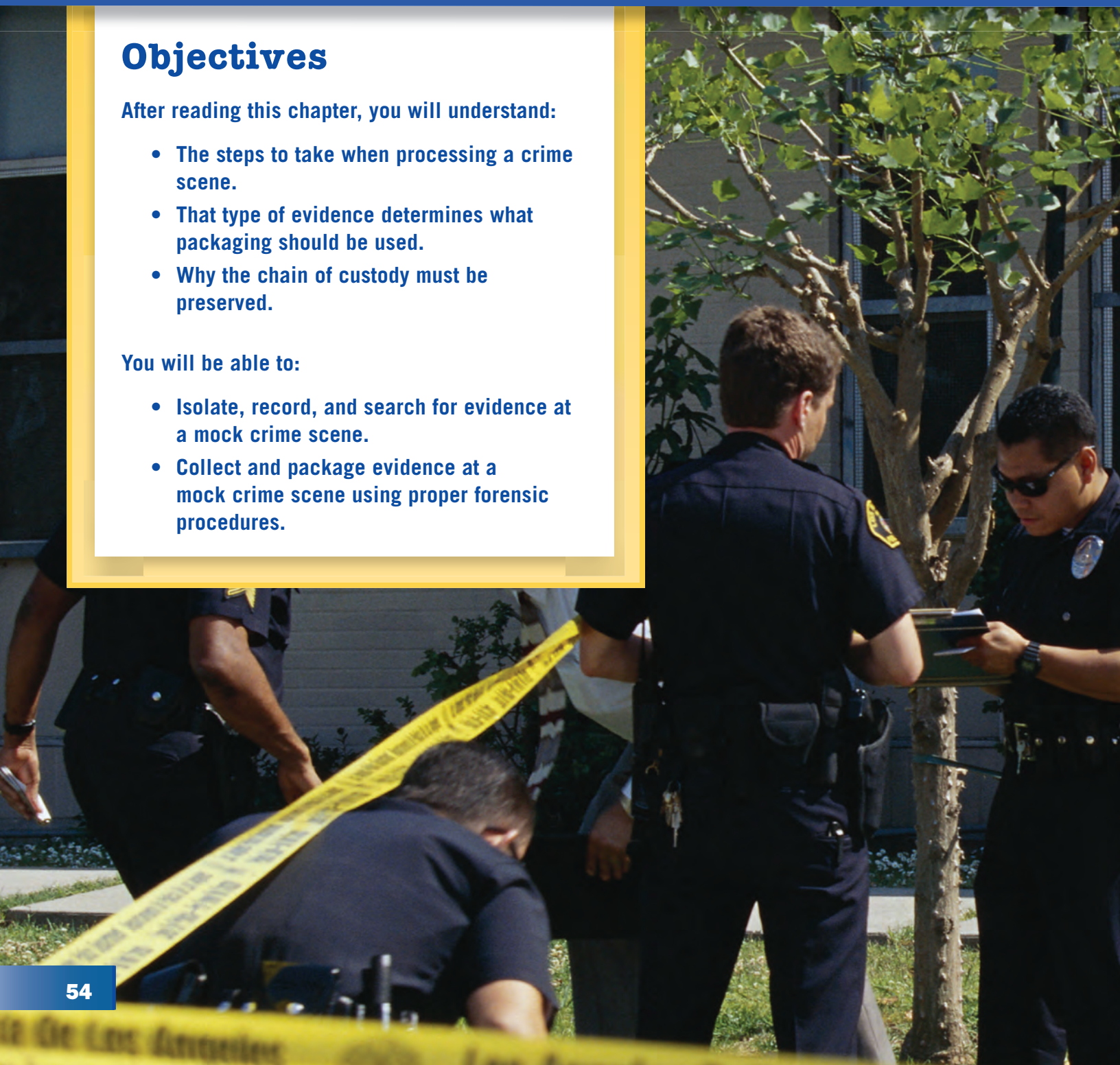
Objectives

After reading this chapter, you will understand:

- The steps to take when processing a crime scene.
- That type of evidence determines what packaging should be used.
- Why the chain of custody must be preserved.

You will be able to:

- Isolate, record, and search for evidence at a mock crime scene.
- Collect and package evidence at a mock crime scene using proper forensic procedures.



"Oh, how simple it would all have been had I been here before they came like a herd of buffalo and wallowed all over it."

—*A. Conan Doyle,* The Boscombe Valley Mystery*, 1892*

At the Crime Scene

Teacher Note

The TRCD for this chapter includes a PowerPoint presentation, which is an overview of the chapter. It can be used as introductory material or at the end as a review.

Forensic science begins at the **crime scene**, which can provide useful information that must be carefully, systematically, scientifically, and legally collected. If the crime scene is not treated carefully, it can make vital information not only useless, but even deceptive, pointing an investigation in the wrong direction.

crime scene: any place where evidence may be located and gathered to help explain events

modus operandi: the characteristic method of operation of a criminal; sometimes referred to as MO

Crime scene investigators gather important information at the crime scene that must be used later in reconstructing the sequence of events, the ***modus operandi***, and the motive for the crime. Investigators must treat the crime scene meticulously and accurately, taking great care to observe and collect all evidence that will be used for scientific analysis and its legal application.

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CODE forensics2E56

The main reason to carefully analyze the crime scene is to learn what happened and to gather evidence that can be used to identify and, ultimately, convict the people responsible.

Preparing to process a crime scene

The crime scene investigator's experience, knowledge, and capabilities are critical for deciding which items at the crime scene are actual evidence, because if all physical objects at the scene were gathered for analysis, the lab would be overwhelmed with insignificant testing unrelated to the case. Sometimes errors made during the investigation may be corrected, but errors at the crime scene in protecting, gathering, and analyzing the evidence can never be made right.

Sometimes a crime scene may be more than one single place; for example, a person whose body is found in one area may have been murdered in another and kidnapped in a third!

There are special steps the investigator must follow in handling the crime scene, beginning with securing and isolating it.

Preserving and Isolating the Crime Scene

The first officer on the scene determines the nature of the crime. He or she has a basic responsibility, first, to get medical assistance for anyone who is injured and,

if possible, to make an arrest. Saving lives is the absolute first priority, even if this means that important evidence may be missed or destroyed. The scene must immediately be protected from unauthorized people who might add new material or alter evidence. Also, suspects and witnesses must be detained. This is a lot to ask of the first responder!

Officer interviewing witnesses at a crime scene

The first officer on the scene, the crime scene investigator, and sometimes the lead detective perform a preliminary walk-through or crime scene survey. The walk-through has several purposes. Any transient or conditional evidence that could change with time must be noted; some examples are temperature, odors, whether lights are on or off, whether windows are locked or unlocked, and trace evidence that may be blown away. Points of entry and exit, as well as the path of travel, are noted. Any special needs to consider or precautions that are needed are noted.

If there has been a death, the medical examiner should note the body's condition and, if possible, estimate the time of death. Physical evidence (such as fingerprints, hair, fibers, and the like) can be very fragile and must be protected against destruction or alteration. Destroyed or altered evidence can never be used. As additional personnel arrive, crime scene tape, barricades, rope, and strategically placed guards may all be used to isolate and protect the scene.

The investigator interviews the first responder, victim, or witness to learn what may have happened. Law enforcement officers should try to note and record details such as weather conditions, particular odors, whether lights are on or off, any signs of prior activity at the scene, light, and visibility.

Classroom Activity

A short exercise on observation and sketching can prepare students for processing the more detailed crime scenes to follow in the course. Find an area of a room that will remain undisturbed for a day or so. Place a number of objects on a table or desk and maybe a few underneath it. These objects may include a pen, a pencil, a notepad (with a written note), a paper clip, a matchbook, or whatever. Rope or tape the area off so nothing can be touched. Have each student investigative group make notes and a sketch of what they observe. After the students leave, change a few items—for example, put in a different brand of pencil or type of pen, or change a word on the note, or use a different matchbook cover—and bring the students in again to note changes. You may wish to use the photographs in the TRCD, Blackline Masters 3.1 and 3.2, as an example for this exercise.

Observing and Documenting the Scene

The investigators should examine the crime scene to get an overall view, to find possible items of evidence, to identify the points of entry and exit, to consider what may have happened, and to mentally outline how the scene should be handled. Keen observation and detailed notes are essential.

A good observation technique to use indoors on hard surfaces such as floors, tables, countertops, and the like is oblique lighting, where the beam from a flashlight is swept back and forth at an angle about one inch off the surface

in a semidarkened area (see Figure 3.1). This technique can reveal items not visible under ordinary light.

There are several methods of documentation: Notes, photography, sketches, and video are all important.

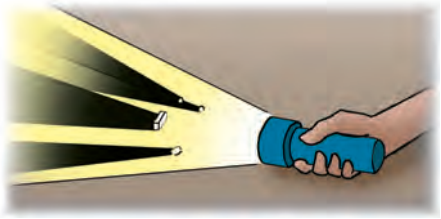


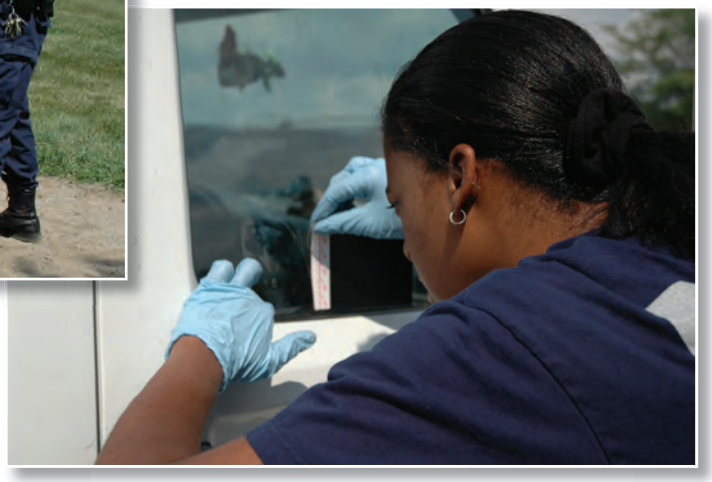
Figure 3.1 Oblique lighting

Notes

Note taking is one of the most important parts of processing the crime scene. It forces investigators to be more observant; when writing things down, people frequently remember details that may otherwise be overlooked. Notes should be complete and thorough, written clearly and legibly. They should detail step-by-step every action that the investigator takes and the order in which it is taken. The investigator should measure the scene and refer to these measurements in describing all evidence and where it was found. Notes should include the date and time; a description of the location, weather, and environmental conditions; a description of the crime; the location of the evidence relative to other key points; the names of all people involved, including authorized personnel, witnesses, and victims; all changes that have occurred; and any other relevant information.

The investigator should continue to take notes throughout the processing of the scene. He or she needs to make a written description of the physical evidence, its location, the time of its discovery, and packaging. The investigator may also tape-record descriptions; the tape can be transcribed later and the transcription added to the notes.

Officer taking notes at a crime scene



Collecting physical evidence; a palm print

Photographs and Videotape

Officer taking photograph of vehicle in possible hit and run

There is an old saying that "a picture is worth a thousand words." Photographs can capture details that even the most observant investigator may miss. Before making any detailed examination and before touching or moving any evidence, the investigator should photograph the scene. He or she should give special attention to points of entry and exit. Photographs help the investigator and witnesses remember details; they show where evidence is placed in the scene, and sometimes they help the judge and jury visualize the crime scene.

The investigator should take photographs that clarify the scene, close-up photos of evidence, photos of the scene as viewed through the eyes of a witness, and photos of the location of the scene and its surroundings. Several photos of the same object may be taken from different angles to provide different perspectives and perhaps new details. All photographs should include a ruler for scale and be carefully documented and kept as evidence.

Videotape is becoming more common as another way to record and show details of the crime scene. The investigator can narrate, giving relevant information while moving through the scene. Videotaping should begin outdoors and move into the indoor scene, including the external setting. Videotape should be treated as evidence and not edited or erased.

Sketches

As well as taking photographs, the crime scene investigator draws sketches. Sketches and photography work together, with the sketches giving perspective to the photographs. As with note taking, sketching the scene can help the investigator to notice and remember details. Sketches also give a permanent record of the relationships of different points of interest to each other in the scene. Sketches may give a better overall layout of the scene than photographs. They allow for selectivity; that is, the investigator can leave out extra details that may be confusing.

One of the most important roles of the sketch is to give measurements, scale, and relative placement of all important details in the crime scene. Sketches can combine the best features of crime scene notes and photography. They should include the date and time; scale; reference points; distance measurements; the names of investigators, victims, and suspects; and a legend.

An original sketch is considered evidence and must be treated as such, never changed or tampered with after completion. The original must be properly safeguarded.

An example of a rough sketch is shown in Figure 3.2 on the next page.

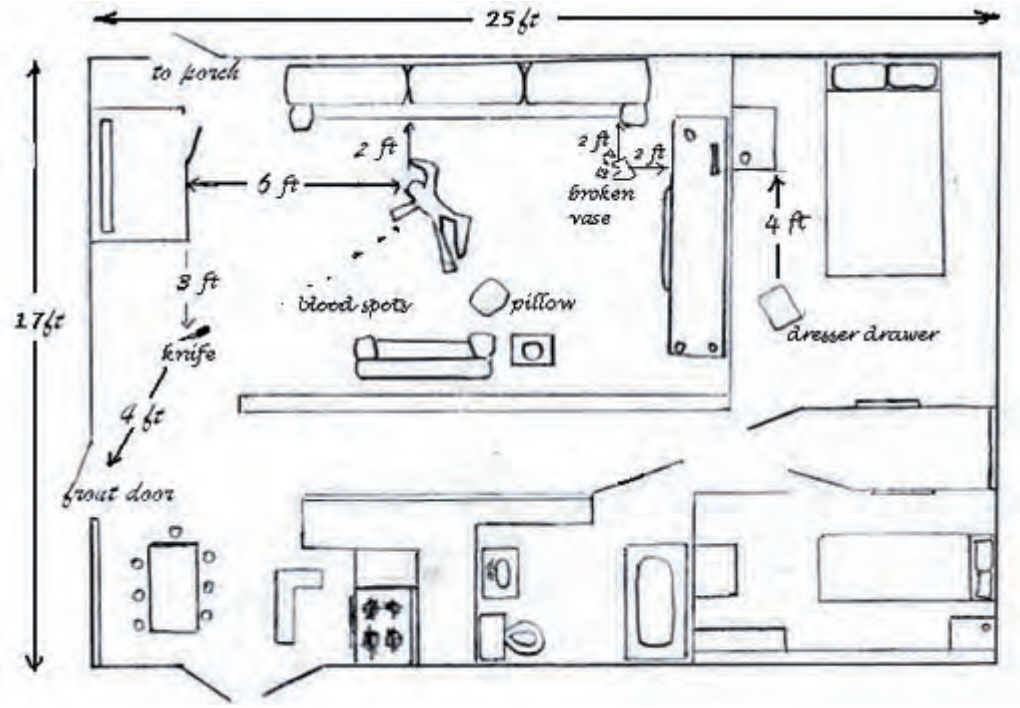


Figure 3.2 Student sketch of crime scene

Searching the Scene for Evidence

Investigators must methodically and thoroughly search the crime scene for physical evidence. This search can be the most important phase of the investigation. Basically, the investigators are looking for anything that should not be there. Anything that might carry trace evidence, such as clothes, documents, or rugs, may have to be collected for later examination in the lab. The search involves extreme care in identifying, packaging, and labeling each piece of evidence. Special lighting, such as ultraviolet light, may be used to spot body fluids that would be invisible in normal light.

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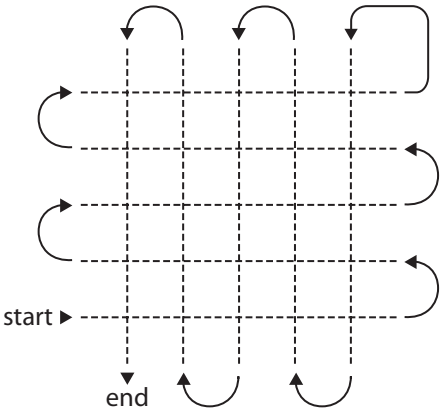


Figure 3.3 Grid search

Different search methods may be employed depending on the circumstances and the area to be searched. A line, or strip, method is best used in large outdoor scenes. Officers form a line, shoulder to shoulder, and walk through the area searching for evidence. The grid method is basically a double line search, with officers moving parallel to each other and then repeating the sweep from a different direction, making a grid pattern, as shown in Figure 3.3. The zone method is most effective in houses or buildings; teams are assigned rooms or small zones for searching. The wheel, or ray, method is best used in small areas. Officers begin at the center of the scene and move outward in a pattern that makes a circle. The spiral method may move inward or outward, with team members

moving in a circular or spiral pattern; it is best used in areas where there are no barriers or walls.

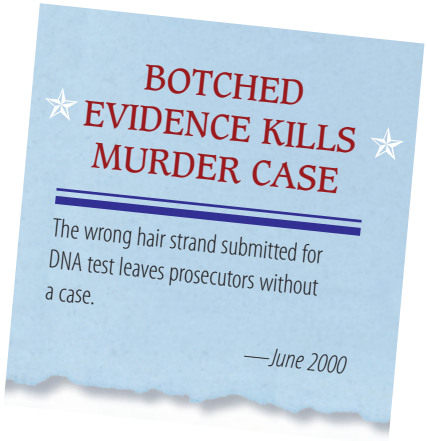
How the investigator carries out the search depends on the location, the size of the area, and the complexity of the crime scene. Too many investigators get in each other's way and may destroy evidence; too few may miss evidence. A large area may be divided into designated sections for systematic searching.

Officer collecting evidence in possible hit and run

Collecting and Packaging Evidence

The next step in processing the crime scene is to collect and package the evidence. The investigators must put each item collected in a separate container or package, and then label it. This helps protect the item and avoids any contamination. The most fragile evidence, such as fingerprints, bloodstains, and other trace evidence, is collected and packaged first. If evidence is found sticking to a larger object, for instance blood or hair on a piece of clothing, the whole garment is collected, packaged, and sent to the lab.

Generally, pill bottles, vials, manila envelopes, and plastic bags are good containers for most evidence. There are some special considerations:



- Wet items must be dried before packaging to prevent mold and mildew.
- Containers should be sealed tightly to prevent leaks or breakage.
- Biological items should be dried and kept in a freezer.
- Clothing with trace evidence (such as a hair) should be packaged carefully to avoid disturbing the evidence.
- Firearms should be fixed rigidly inside a wooden container.
- Evidence from a suspected arson should be kept in an airtight container so that fumes from an **accelerant** cannot evaporate.
- A collection may be made using adhesive tape to pick up the evidence. This method, however, picks up everything, not just the traces associated with the crime.

accelerant: a flammable substance used to help start a fire

Teacher Note

Midterms and finals should involve a crime scene, which can be set up in the back of the room or in an isolated place in the school, for students to process. The crime can be of any type and can include evidence that has been studied as well as extraneous material. You may wish to assign each investigative group a specialized task such as fingerprints, soil analysis, and so on. The students should decide how to process the crime scene. They should consider, among other things, the following questions: What specialists should go in first so the scene is the least disturbed? At what point should photographs be taken? When may a particular piece of evidence be removed for analysis? A digital camera should be available and all photos logged in. See the crime scene schematic in the TRCD, Blackline Master 3.3, for ideas in setting up a crime scene.

If you have a mock murder or suicide, a "resuscitation Annie" (CPR dummy) makes

Plastic evidence bag

- A vacuum cleaner with a special attachment is sometimes used, but it, too, picks up everything.

Controls must also be collected to compare with any evidence from the crime scene whose source is unknown. Remember that controls are samples with a known origin. For example, if blood is found at a crime scene, its source will be unknown until it is compared to the blood of the victim and suspect (controls). These control samples can later be compared with evidence found at the crime scene. The source of evidence at a crime scene is considered unknown (or questioned), even though it may seem to be obvious where it came from.

The investigator should properly package all evidence and controls, sealing the items with tamper-proof tape and labeling each. If there is a body, it is considered the property of the coroner or medical examiner; this department does collection of the evidence on the body.

Teacher Note, *continued*

a good body. Ask your local Red Cross or fire department to donate one that is worn out. If you have an "Annie," it can be dressed up and positioned in the crime scene. A store mannequin is next best; otherwise, a chalk outline on the floor will work. Use yellow tape to isolate the area.

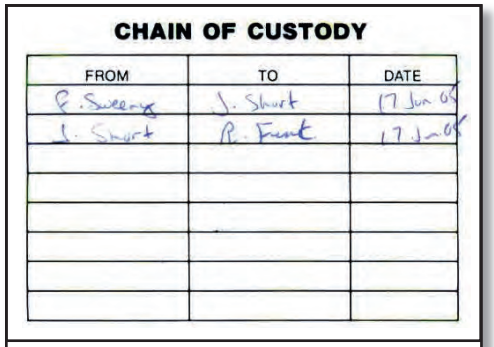
Crime scene tape is very important. You want to make your scenes and evidence handling as authentic as possible. Tape is available from many lab supply houses, as are evidence bags, labels, and other materials. See, for example, Ward's Natural Science website at www.wardsci.com, or use the evidence labels from the TRCD (Blackline Master 3.4) as a format for generating your own evidence tags and labels. The small ones can be printed on a page of clear, suitably sized labels (like those made by Avery) and used to seal plastic zipper-style baggies, which are far less expensive than "professional" baggies.

A description of each suspect can be distributed. See, for example, the Personal Information Form (PIF) in the TRCD (Blackline Master 3.5). As each investigative group reports

Maintaining the Chain of Custody

chain of custody: a written record of all people who have had possession of an item of evidence

There must be a written record of who has had possession of the evidence at all times. This is called the **chain of custody**. The court needs to know who has been responsible for evidence from the time it is collected to the time it may appear in court. The record shows who collected the evidence; who had contact with the evidence, at what time, and under what circumstances; and what, if any, changes were made. The record of the chain of custody is frequently a label on the package itself. It is not uncommon for every person who collected, transported, or tested the evidence to testify in court.


CHAIN OF CUSTODY

FROM	TO	DATE
P. Sweeney	J. Short	17 Jun 04
J. Short	R. Frank	17 Jun 04

A sample chain of custody label

Crime Scene Investigation

Crime scene investigation is based on the scientific method, the Locard Exchange Principle, logic, and forensic techniques. It involves not only processing the crime scene but also the steps that lead to reconstruction of the crime. The crime scene processing, recognition, documentation, and collection come first. Next comes identification and classification of evidence. The investigator must determine what the evidence is and where it came from. Individualization is always the goal, involving comparison testing, evaluation, and interpretation of the evidence. In the end, an

Mock crime scene in high school lab with CPR dummy

attempt is made to reconstruct the crime, determine the sequence of events, and then report and present all findings.

After the crime scene has been investigated, evidence is sent to the forensic lab to be analyzed. The investigator may ask for a particular type of examination to be made with each piece of evidence; but the analyst is not strictly bound by specific requests.

Teacher Note, *continued*

its findings, you can fill in a matrix matching clues to suspects. See the TRCD, Blackline Master 3.6, for an example of a matrix. You should discuss a probable reconstruction of the crime. A recap of failures, anomalies, and errors may help make the next event better. Consider also initiating a mock trial with judge and jurors, where a speaker for each investigative group can be the expert witness, subject to cross-examination (by the teacher, perhaps). See the TRCD, Blackline Master 3.7, for an example of a grading scheme for an expert witness at a mock trial.

Teacher Note

Have students review the case study on Mark Winger on page 64. This case illustrates the importance of using accurate sketching techniques; good sketches can be used in a court of law as evidence.

3.1: Jeffrey MacDonald

CASE STUDY

Captain Jeffrey MacDonald called military police in the middle of the night on February 17, 1970. He said he had just regained consciousness and found his wife and two young daughters massacred in their home. He told the military investigators that he had been asleep in the living room when he was abruptly awakened by four hippies saying, "Acid is groovy . . . kill the pigs." The intruders had tried to kill MacDonald with an ice pick, but he fought them off.

As the MPs arrived at the scene, they all entered the house, walking around and touching what may have proven to be evidence. Investigators looking at the crime scene believed that the scene looked as if it had been staged. It seemed odd to them that MacDonald's injuries were relatively minor, considering he had been fighting for his life. His wife, Collette, had been stabbed more than 20 times in the chest, and her head was crushed by a half dozen blows. One of the daughters, two-year-old Kristen, had 33 stab wounds, while the other, Kimberly, age five, had been both beaten and stabbed.

Dr. Jeffrey MacDonald

Many types of evidence were gathered: blue fibers matching MacDonald's pajamas, knives wiped clean, an ice pick wiped clean, hair, candle wax, a blood trail that led from room to room, but, strangely, no fingerprints. The evidence was carelessly gathered, and the chain of custody was poorly maintained. Not all evidence given to the prosecution was given to the defense, judge, or jury.

CASE STUDY CONTINUED

Ten years after the crime, after several motions, countermotions, and delays, MacDonald was convicted of the murders, although he maintains his innocence to this day. He has plenty of supporters who believe in his innocence, while plenty of others believe in his guilt. How do you think things may have turned out if investigators had properly documented the scene, collected and packaged evidence, and maintained the chain of custody?

3.2: Mark Winger

CASE STUDY

After a strange, two-hour shuttle-van ride home from the St. Louis airport on August 23, 1995, Donnah Winger was stalked by the driver of the van, Roger Harrington. When she got home, she told her husband, Mark, about this incident.

Mark Winger

Six days after that ride, police were called to the Winger home, where they found Donnah Winger bludgeoned to death, Harrington shot twice in the head, and Mark Winger distraught. Mark Winger said that while he was in the basement, he heard a scuffle, ran upstairs, and found Harrington beating his wife with a hammer, so Winger shot him.

The obvious conclusion was that because Mrs. Winger had complained to family, friends, and the airport limousine company about Harrington, he had come after her to retaliate. However, a crime scene site survey was done, and a three-dimensional, scale trial model was constructed and sent to the police department in Springfield, Illinois. The reconstruction depicted the distance between the two victims and Mark Winger's path inside the residence during the time of the deaths. The exhibit also illustrated Mark Winger's line of sight according to his statements, which were inconsistent with the evidence and physical layout of the residence. A visual information specialist from the structural design unit testified as an expert witness to the accuracy of the reconstructed crime scene. As a result of these inconsistencies, Mark Winger was convicted of murder and sentenced on August 1, 2002, to life in prison without the possibility of parole.

—from the 2002 FBI annual report

Crime scene: The body of a scientist, whose name and identity are being withheld, is discovered in a science lab at the local high school. The body is located in the corner of the classroom in a sprawled position, faceup. The victim is wearing a disguise of some kind, and a small amount of dirt is lying nearby. There is some evidence of a struggle, and foul play has not been ruled out. A broken beaker is found next to an overturned microscope. It appears that the victim may have attempted to identify the aggressor by writing an incriminating note, which is found torn and crumpled next to the body. Blood, hair, and fiber evidence are collected at the scene along with a variety of fingerprints. Police are baffled about what actually took place.

Consider each of the possible scenarios as to how the scene was handled. Carefully review each, taking into account proper crime scene processing.

Scenario A: One morning, a teacher, Mr. Woodward, enters a classroom to find the body of a former science teacher sprawled on the classroom floor. He immediately checks the body for a pulse. Hearing a janitor in the hall, he calls him into the room. The janitor notices the blood around the body and, wearing gloves, attempts to clean it up, hoping to avoid its spread to the rest of the room. Meanwhile, Mr. Woodward runs next door and calls the principal, Mr. Glynn. The principal, having just entered the office, hurries down to the crime scene. He moves around the area, carefully avoiding the body. Making a quick decision, he calls the superintendent at home, who immediately calls the police. The first officer to arrive at the scene puts up a barrier and posts guards at the entrance to the room. The forensic technician soon arrives to process the crime scene.

Scenario B: An early-morning janitor spots the body through the classroom door and immediately calls the police. The first officer to arrive enters the room and walks around the body, accidentally stepping in the blood and tracking it through the soil, leaving a bloody shoe print on the floor. He quickly wipes his shoe on a lab coat and checks the body for a pulse. Finding none, he calls for additional help. As he waits, he views the crime scene. Spotting the torn and crumpled paper on the floor, he smooths it out and pieces it together. Some blood, apparently from the body, is on the note, making it difficult to read, so he replaces it where he found it. The second officer to arrive at the scene puts up barrier tape and isolates the scene, preventing the teacher and principal from coming in. The forensic technician soon arrives to process the scene.

Scenario C: Patrolling the halls in the early morning hours, security officer Morgan notices a light on in the classroom. She slowly opens the door and notices the body on the floor. She immediately calls for backup and secures and isolates the scene, preventing anyone from entering the room. As the supporting officers arrive, she places a barrier around the area and posts guards at the scene. The second officer to respond attempts to enter the area but is not allowed to enter until the forensic experts have completely recorded the scene and collected the evidence.

Answers

1. As defined in Chapter 2, physical evidence is any object or item that has relevance to the crime, such as fingerprints, hair, fibers, soil, documents, blood, DNA, glass, metals, powders, pills, and the like.
2. anywhere evidence that may help explain events can be found
3. from experience and knowledge of processing crime scenes
4. isolate and secure the scene
5. notes, sketch, photos, videotape
6. It forces the investigator to be more observant. Names, dates, and locations may be recorded; there may be information in recorded notes that does not appear in photos.
7. perspective, the whole layout of the scene, dimensions
8. Answers may vary; see page 60.
9. the crime scene
10. known sources such as the victim and suspects

Checkpoint Questions

Answer the following questions. Keep the answers in your notebook, to be turned in to your teacher at the end of the unit.

1. **What is physical evidence? List some examples.**
2. **In addition to the location where the crime was committed, what other places may be considered part of the crime scene?**
3. **How does the investigator decide which evidence at the crime scene is significant and which evidence is not?**
4. **What is the first step taken in processing a crime scene?**
5. **List four methods of documenting a crime scene.**
6. **Why take notes at a crime scene if photos are taken?**
7. **What information can a sketch give that a photo does not?**
8. **Discuss one type of search method and where it may be used.**
9. **Where does the questioned evidence come from?**
10. **Where do the controls come from?**

11. For Scenario A, use what you have learned to describe how the crime scene was contaminated as well as how incorrect procedures were used. What was done correctly?

12. For Scenario B, use what you have learned to describe how the crime scene was contaminated as well as how incorrect procedures were used. What was done correctly?

13. For Scenario C, use what you have learned to describe how the crime scene was contaminated as well as how incorrect procedures were used. What was done correctly?

14. Make a sketch of the crime scene your teacher has set up in the back of the classroom. Be sure to include all measurements, scale, and a legend identifying which piece of evidence corresponds to each labeled position in the sketch.

15. After you have completed the sketch, take detailed notes describing the scene and noting all information pertinent to the crime.

16. What type of evidence should be collected from the crime scene?

17. Make a list of the controls that would need to be collected in this case for comparison.

18. Discuss the type of packaging that should be used for each type of evidence in the scene. Explain your reasoning.

Answers, *continued*

11. Mr. Woodward should have called the police; the janitor should not have cleaned up the blood; too many people came into the room, causing possible contamination or adding new evidence. What was done right: Mr. Woodward immediately checked the body for a pulse.

12. No one checked the body for a pulse; the first officer stepped in the blood, making a new print, and he wiped blood on the lab coat, contaminating it and possibly wiping away evidence; he also touched the note, possibly contaminating or destroying print evidence. What was done right: The janitor immediately called the police; the crime scene was isolated and secured by the second officer; no one was allowed to enter the scene until the crime scene processors arrived.

13. No one checked the body for a pulse. What was done right: The security officer called immediately for backup and secured and isolated the scene; no one was allowed to enter the scene until crime scene processors arrived.

14. The sketch should include measurements, symbols representing evidence, a legend, scale, overall directions, and position of all evidence.

15. Notes should include a detailed description of the scene, including all information available.

16. Evidence collected may include blood, soil, glass, fingerprints, hair, fibers, the note (for prints), blood, and handwriting.

17. Controls for this crime scene would include samples from the victim, including blood, hair, fiber, and fingerprints; glass from the broken beaker; and soil from the immediate environment and from the victim's residence. The same samples should be collected from suspects.

18. Fingerprints are dusted and lifted using tape. Broken glass should be placed in a rigid container so it does not rip through and cut the examiner. Soil, fibers, hair, and the note can be put in envelopes or small vials. The blood evidence needs to be dried and kept in a freezer to prevent mold.

Answers, *continued*

19. If the chain is not maintained, the evidence may not be used in court.

20. There should be a record of who collected the evidence and when, as well as the case ID. All evidence should be carefully sealed in separate containers.

Teacher Note

To learn the importance of using good crime scene processing techniques, students can research cases where the outcome is very controversial due to faulty or inept processing.

Optional Website Activity

Have students conduct the introductory virtual autopsy case that can be found in the Chapter 3 student resources area (SCSI tab) on the *Forensics* website. See the teacher resource section on the site for more information.

19. Why is it important to maintain the chain of custody?

20. What steps should be taken in this case to maintain the chain of custody?

Additional Projects

Each group of students can find, or be assigned, a case where the crime scene was compromised—for example, the Manson murders, the O. J. Simpson case, the Enrique Camarena case, the JonBenet Ramsey case, or the Jeffrey MacDonald case. A one-page report should provide a synopsis of the crime, the case, and how the case was botched.

References

Books and Articles

Ragle, Larry. *Crime Scene*. New York: Avon Books, 2002.

Genge, N. E. *The Forensic Case Book*. New York: Ballantine Books, 2002.

Films and Videos

Scene of the Crime. Available from A&E online store at http://store.aetv.com/html/product/index.jhtml?id=73461. DVD.

Websites

www.crime-scene-investigator.net; a lengthy list of references for crime scene investigation

www.fbi.gov/hq/lab/handbook/intro16.htm; FBI: steps in crime scene processing

www.fbi.gov/hq/lab/fsc/backissu/july2000/deedric4.htm; FBI crime scene processing

www.feinc.net/sketch.htm; insight into sketching procedures and software programs