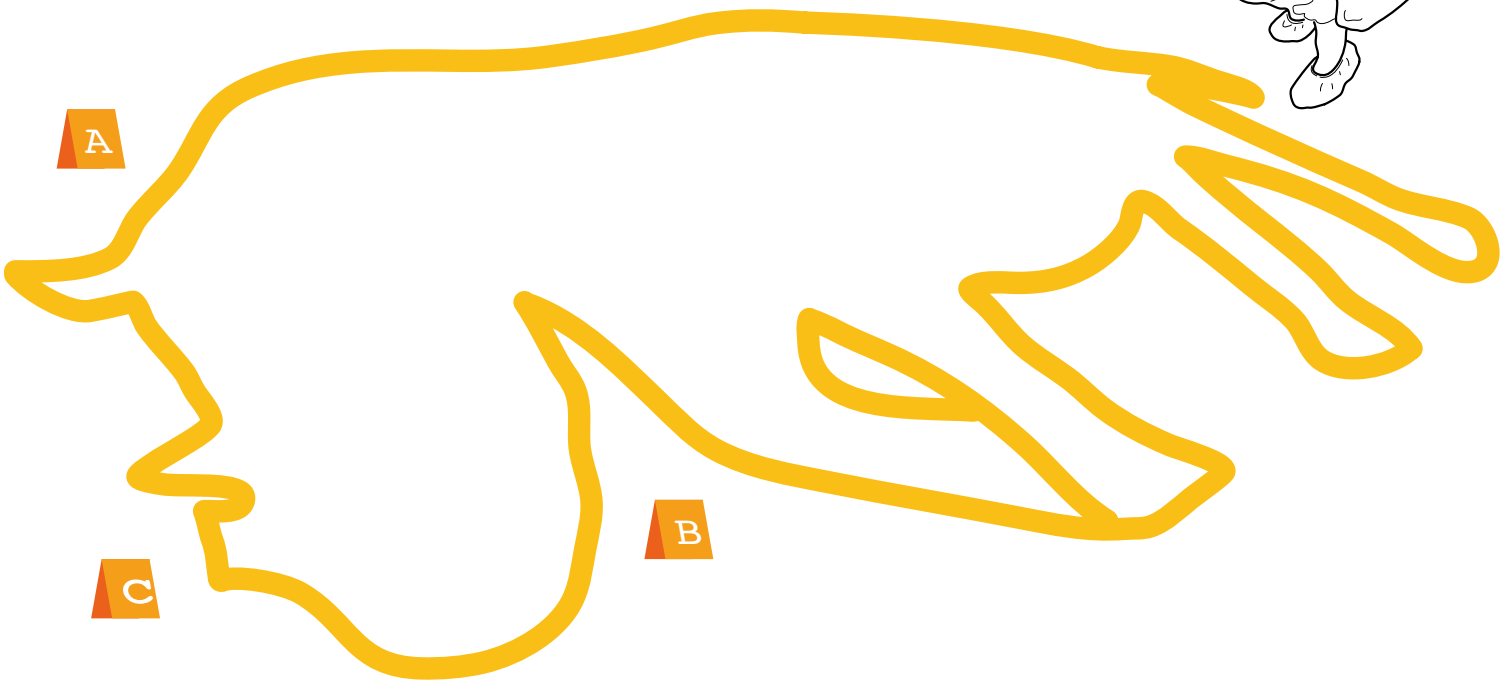
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United Nations Office on Drugs and Crime

AFRICAN WILDLIFE FORENSICS NETWORK

INSTRUCTOR'S MANUAL FOR WILDLIFE CRIME SCENE TRAINING

1st Edition, 2021





UNITED NATIONS OFFICE ON DRUGS AND CRIME

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Based on the
AFRICAN WILDLIFE FORENSICS NETWORK'S
WILDLIFE CRIME SCENE GUIDE FOR FIRST RESPONDERS



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This *Instructor's Manual* is based on the African Wildlife Forensics Network's *Wildlife Crime Scene Guide for First Responders*, produced by the United Nations Office on Drugs and Crime (UNODC) Global Programme for Combating Wildlife and Forest Crime. The UNODC *Crime Scene Training Manual* was also referred to during the development of this *Instructor's Manual.*

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The content of the manual was developed by Marcel van Beest, Rob Ogden and Simon Dures with technical input from Yves Braet, Rod Potter and Irene Kuiper. Production and editorial oversight of the Guide was coordinated by Sinead Brophy and Rob Ogden. The text and learning materials were prepared by Simon Dures.

Pedagogical advice was provided by Dr. Louise Connelly.

The content of the Guide was refined with assistance from Gasto Jerome, Gladys Lendii, Mwanaisha Mbarouk, and Gideon Mseja, at the College of African Wildlife Management, Mweka, Tanzania.

Netherlands Forensic Institute
Ministry of Justice and Security

TRACE
the wildlife forensics network

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INTRODUCTION

This *Instructor's Manual* is intended as a resource for instructors to deliver training to prospective wildlife crime scene responders. The curriculum is based on the content of the African Wildlife Forensic Network's (AWFN) *Wildlife Crime Scene Guide for First Responders*, produced by the United Nations Office on Drugs and Crime (UNODC). The Guide is cross-referenced throughout this *Instructor's Manual* and should be used as a coursebook and distributed to students.

The forensic investigation of wildlife crime concerns the scientific analysis of evidence items recovered from a crime scene. Forensic evidence may be required to establish the presence and actions of a suspect at the crime scene. Alternatively, investigators may need to identify wildlife parts or products that have been illegally taken or traded. Such forensic evidence facilitates prosecutions by enabling the reconstruction of past events. The forensic process is highly dependent on the recognition of potential evidence and the actions taken at a crime scene by a responder.

It is essential that responders can recognise a suspected crime scene and know how to approach and process the scene in a way that ensures evidence is admissible in a court of law. Their actions play a crucial role at the start of the investigation as any mistakes made at this stage may compromise the evidence, preventing it from being successfully used to help bring the perpetrators to justice.

The *Instructor's Manual* is structured to introduce the concepts and practical skills required by wildlife crime scene responders in a stepwise manner, up to their level of mandate to perform different roles at a crime scene. For example, some officers may only be mandated to identify and secure a crime scene, while others may also have a mandate to document the crime scene and, particularly when they do not have the support of a full crime scene investigator, even progress to evidence collection. The introductory lesson covers background concepts that need to be understood by all wildlife law enforcement responders to correctly process a crime scene. Lessons 1-6 will help you train your students to act appropriately at a crime scene.

The *Guide and Instructor's Manual* recognise that some individuals may need to operate in the field under sub-optimal conditions, with limited equipment and limited personnel in support. Furthermore, in many cases the first responders to a wildlife crime scene may be the only personnel able to attend the scene, particularly in many of the more remote African regions. A responder in such circumstances may be required to not only approach and secure the crime scene (Lesson 1), but also to document (Lessons 2-4) and collect evidence (Lesson 5 & 6) and it is essential that they are trained to follow the correct procedures and are aware of their legal mandate to act (see section on 'who is a first responder', p. 2 of the *Wildlife Crime Scene Guide for First Responders*).

The curriculum presented here should not limit your training of crime scene responders and may need to be adapted to reflect different logistical, environmental or legal circumstances. The mandate and the requirements determined by each department will determine the role of the crime scene responder at a wildlife crime scene, however, the actions described in this Manual should be considered the minimum standard required for each stage of processing a crime scene (See page 2 & 3 of the *Wildlife Crime Scene Guide for First Responders* for more information.

All content within this Manual can and should be tailored to the training needs of your particular situation.

Please note, the material provided here does not provide formal assessment or lead to a qualification from any organisation.

WHO CAN USE THIS INSTRUCTOR'S MANUAL?

To deliver any wildlife crime scene responder training, you should either have previous experience in wildlife crime scene investigation, have undergone a Train the Trainer course, or have considerable experience as an assistant instructor on a training course. Please be aware, your ability to act as a crime scene investigation instructor is subject to the laws of the country in which you are training. It is imperative that you consult the relative authorities before conducting any training and obtain their permission to conduct training; failure to do so may mean that any training you provide is not recognised by the courts, in turn affecting how the actions of your trainees at future crime scenes is judged.

This *Instructor's Manual* includes only the basic essentials of running a wildlife crime scene responder course. Anyone running this training should have knowledge that goes beyond the scope of this *Instructor's Manual*. In order to effectively teach the principles and actions described in the *Wildlife Crime Scene Guide for First Responders*, which should be referred to alongside this document, it is important that you fully understand the broader context of each issue. Furthermore, you should be aware of the technical capacity available to the jurisdiction (country) in which your trainees are likely to be operating and have an understanding of the forensic techniques they are able to use (for example, DNA species identification, finger mark lifting, chemical profiling etc.).

Where appropriate expertise is available within national agencies, it advisable to invite representatives to attend the training to more successfully integrate the skills being taught in the course with the needs, capabilities and workflow of these agencies. For example, it may be appropriate to invite prosecutors and/or forensic laboratory personnel.

When running training based on this Manual it is recommended that your student-to-instructor ratio be no higher than 5:1 with no more than 20 students.

It is important to note that completing a course based on this Manual does **not** qualify you to be an instructor.

FIREARMS

Wildlife crimes commonly involve firearms and, as such, they may be found at wildlife crime scenes. For this reason, **it is important that responders to wildlife crime scenes are aware of the threat to life that incorrectly handled firearms may pose.** This Instructor's Manual and the Wildlife Crime Scene Guide for First Responders do not address firearms safety beyond acknowledging its importance and separate training on this topic is required. Please make students aware of the threat posed by firearms and, if necessary, ensure they undertake appropriate training in disarming the firearm and making it safe to handle and transport.

HOW TO USE THIS INSTRUCTOR'S MANUAL

This *Instructor's Manual* has been written with a view to the full course being run over a minimum period of 5 days, however, in most cases the course is likely to be run over a longer period to ensure the students have a solid grasp of all the material. Each lesson is flexible and while approximate timings have been suggested this is likely to vary depending on the students, your teaching style and the possibility of language barriers. With experience, your ability to judge the amount of time required will improve. This Manual should not be considered prescriptive or inflexible, in fact it is intended that all instructors should adapt their training to better reflect different logistical, environmental or legal circumstances, as well as the skill level and familiarity of the students to the material. Some material may take longer to teach than described here, even requiring additional lessons for students to fully grasp the content. The key is that all students must understand all learning outcomes for each lesson that is covered.

For some groups of students, for example those who only hold a limited mandate, you may decide to only run the Introduction and Lesson 1, or the Introduction and Lessons 1-4 of the curriculum but excluding lesson 5 & 6 (collection of evidence). In all cases the Introduction is essential. The entire course is intended to be scalable according to the level of training required.

Before running a course, it is important that you read through the *Instructor's Manual* as there are certain exercises that require a degree of preparation. For some exercises, you may struggle to find the required equipment and so you may need to improvise using what is available to you and the items trainees are likely to be able to access. Anyone running training based on this material should already be familiar with the subjects being covered and so should have little difficulty in finding alternatives. Furthermore, while a number of practical exercises and scenarios have been suggested, there is no reason why you should not add more or adapt the ones described to better reflect the reality of the situations faced by the personnel you are training. It is also advised that the instructor become familiar with any tools the trainees are already using, for example the use of SMART or CyberTracker to record crime scene information.

This Manual is designed to promote practical learning as much as is possible. Practical exercises are supported by classroom teaching. Training materials are provided, mostly based on the content of the *Wildlife Crime Scene Guide for First Responders*, however you may wish to prepare your own to reflect your own teaching style. The classroom sessions have been written so they can be run with or without access to a projector, however, a white/blackboard or flipchart will be needed. The students also need a notebook and pen (pencil should not be used for evidence documentation).

It is recommended that you spend as much time as possible mentoring the students while you run the practical exercises. Crime scene investigation is a practical skill and it is essential that each of your students fully understands what they are doing and how to do it correctly. Each of the practical skills has a practical exercise linked to it. These skills are then used in a final 'full crime scene' practical exercise, which will give you the opportunity to observe how well they have absorbed the material and correct any small mistakes being made. Your experience of the common mistakes to look out for will improve with your own experience in running these courses.

For each lesson, a short multiple-choice test is provided in the learning materials. This is not a formal assessment but is a way for you to assess how well your students understand what you are teaching. You should allow time after the students have filled in the test to go over mistakes with them individually and ensure they fully understand the material. To assess the efficacy of your training, you may consider asking the students to complete all the multiple-choice tests before undertaking the training, as well as after, so you judge their improvement.

CURRICULUM

The course curriculum is based on the Wildlife Crime Scene Guide for First Responders.

INTRODUCTION - BACKGROUND & CONCEPTS

- Who is a wildlife crime scene responder?
- What is a crime scene?
- What is evidence?
- Guiding Principles – 'every contact leaves a trace'
- Guiding Principles – 'if it isn't documented, it didn't happen'
- Contamination
- Investigative questions and consideration
- Chain of Custody

LESSON 1 – CRIME SCENE ASSESSMENT, APPROACH AND SECURITY

- What not to do
- Health & safety
- Initial documentation
- Crime scene contamination
- Planning, executing and reporting your approach
- Crime scene photography
- Crime scene security

LESSON 2– CRIME SCENE SEARCH

- What not to do
- How to search
- Search patterns
- Marking evidence
- Search documentation

LESSON 3 - CRIME SCENE DOCUMENTATION AND MAPPING

- Evidence documentation
- Why a sketch map is necessary
- What should be included in a sketch map
- The aerial view
- Triangulation
- Locating north on your sketch map

LESSON 4 – EVIDENCE PHOTOGRAPHY

- Why evidence photography is necessary
- What should be included in an evidence photograph
- Overview, mid-view and close-view images
- Equipment and data

LESSON 5 – EVIDENCE COLLECTION

- Health & safety
- Avoiding contamination
- Sampling and preserving biological evidence
- Evidence labelling & storage

LESSON 6 – EVIDENCE DOCUMENTATION

- Evidence documentation
- Transfer of evidence

A final practical exercise covers all topics.

EXAMPLE TIMETABLE

While the timetable used to cover the material is entirely flexible, an example is provided below. Note that inexperienced instructors or instructors operating a high trainee to instructor ratio are likely to require more time.

At the beginning of the first day you are likely to need to introduce the instructors and introduce what the students can expect to gain from the course (see Introduction above and page 1 of the Wildlife Crime Scene Guide for First Responders). In addition, it is useful to ask the students to briefly introduce themselves and their background, as well as mention what they hope to gain from the course.

DAY 1

Time	Activity
Morning Session 1	Introduction – Background and concepts
Break	
Morning Session 2	Introduction – Background and concepts
Lunch	
Afternoon Session 1	Lesson 1 - Crime scene assessment, approach and security
Break	
Afternoon Session 2	Lesson 1 - Crime scene assessment, approach and security

DAY 2

Time	Activity
Morning Session 1	Lesson 2– Crime scene search
Break	
Morning Session 2	Lesson 2– Crime scene search
Lunch	
Afternoon Session 1	Lesson 3- Crime scene documentation and mapping
Break	
Afternoon Session 2	Lesson 3 - Crime scene documentation and mapping

DAY 3

Time	Activity
Morning Session 1	Lesson 4 – Evidence photography
Break	
Morning Session 2	Lesson 4 – Evidence photography
Lunch	
Afternoon Session 1	Lesson 4 – Evidence photography
Break	
Afternoon Session 2	Lesson 5 – Evidence collection

DAY 4

Time	Activity
Morning Session 1	Lesson 5 – Evidence collection
Break	
Morning Session 2	Lesson 5 – Evidence collection
Lunch	
Afternoon Session 1	Lesson 6 – Evidence documentation
Break	
Afternoon Session 2	Lesson 6 – Evidence documentation

DAY 5

Time	Activity
Full Day	Final practical exercise followed by final review and feedback

WHAT YOU WILL NEED

LOCATION

Classroom space -– Space for all of your students to sit and take notes where they have a view of you and the projector screen and/or whiteboard/blackboard/flipchart at the front.

Outdoor space – This is a highly practical training programme and requires a fairly large amount of outdoor space. It is preferable that there is some vegetation and/or access to vehicles, similar to the real conditions your students may face at a crime scene, however, you should adapt this according to the needs of the students you are teaching. In general, you will need approximately 100-300m2 of outdoor space, interspersed with buildings and/or vegetation. Students should be aware that they must wear appropriate clothing for outdoor training.

EQUIPMENT

You will need the equipment listed in the *Wildlife Crime Scene Guide for First Responders* (p.7-11). Some items are essential; however, where possible, alternatives are suggested. You will need some additional equipment for running the course, listed in the table below, cross-referencing the Lessons in which they are used. For a fuller description see the relevant Lesson. The number of items needed has also been suggested; in the case of group activities the number has been specified per group, which will vary depending on the number of students. Where possible, the consumable equipment listed in the *Wildlife Crime Scene Guide for First Responders* should be provided. More expensive equipment such as cameras may need to be brought by students or alternatives used (e.g. smartphones). It is up to the person running the course to improvise or provide alternatives where necessary based on practical and legal requirements.

	Essential	Alternative	Optional	Lesson
1.	Whiteboard/blackboard	Flipchart	Laptop with projector	All
2.	Pens/chalk/whiteboard cleaner/duster			All
3.	Notebook (1 per student)	Students supply own notebook		All
4.	Pen (1 per student)	Students supply own pen		All
5.	Wildlife Crime Scene Guide for First Responders (1 per student)			All
6.	UV powder	Chalk or other fine dust		Introductory
7.	An unusual & hard to describe object			Introductory
8.	Small random items (e.g. pencil, pen, coin, handkerchief, lighter, cup, spoon, penknife etc.) (collection of 15)			Introductory (topic 5)
9.	Object to represent animals (e.g. taxidermied animals or stuffed toys (2 per group)	Chairs, car tyres etc.		1 & 3 (end of lesson practical)
10.	Evidence items (e.g. drink bottle, cigarette butt, length of rope, sweet packet, pen, etc) (5 per group)			1 & 3 (end of lesson practical)
11.	Small evidence items (e.g. snare wire, drinks bottles, sweet wrappers, cigarette butts, lengths of cotton, bottle tops, tomato-sauce (to replicate blood drops) etc.) (collection of 20)			2 (topic 2)
12.	Tiny evidence items (e.g. a sweet wrapper, a cigarette butt, a length of cotton, a bottle top, a screw, a match etc.) (collection of 10)			2 (topic 2)
13.	Selection of pens (approximately 10)	Any similar looking small objects (playing cards, dice etc)		4 (end of lesson practical)
14.	Small pieces of meat to take samples from			5 (end of lesson practical)
15.	A number of pieces of skin with hair to practice sampling	Loose or fake hair		5 (end of lesson practical)

LESSON STRUCTURE

Every Lesson described in this Instructor's Manual is presented in the same five-point format.

1. **Overview.** A brief overview of the Lesson. Each Lesson is broken down into a number of Topics, each reflecting a specific Learning Outcome reflecting a specific ability that the student should be able to demonstrate on completion of the lesson.
2. **Schedule.** The suggested Schedule for each lesson is provided to help you plan the timings for each component topic.
3. **Lesson content.** The largest section of each Lesson addresses each Learning Outcome one by one in a number of lesson Topics, proving guidance on how to prepare the teaching materials. Instructors will need to take time to review the Learning Outcomes and prepare the lesson thoroughly for themselves, this section should provide a clear outline, including background to the topics, suggested activities to demonstrate the subject matter and roleplay practicals to practice what they learn, and some prompts for some commonly overlooked considerations. A reference to the appropriate pages in the Wildlife Crime Scene Guide for First Responders is also given.
4. **Learning check.** This is a flexible section as you should be checking the students learning continually, however, a multiple-choice test for each section is provided as part of the learning material. The tests cover the key points and should help identify the student's comprehension. Once completed, ask the students to swap papers and mark each other's as you go over the answers one by one. You may need to review some material if they are struggling with any of the answers.
5. **Teaching notes.** A section for making your own notes on training delivery.

Introduction

BACKGROUND & CONCEPTS

0.1. LESSON OVERVIEW

Suggested timing for the lesson is one afternoon or morning in the classroom with an hour for the practical. Consider having a 30-minute break part way through the classroom lesson. This is a long lesson so the students may have to stay later than usual.

This lesson is essential as it introduces the concepts that underpin the rest of the wildlife crime scene responder training. During this lesson, students will gain an understanding of the underlying principles behind crime scene investigation. In addition, the students will learn who is considered a wildlife crime scene responder and the importance of knowing who has mandate to operate at a wildlife crime scene as well as what actions they are legally allowed to undertake. Learning in this lesson should include interactive discussion and practical demonstrations. The use of a 'every contact leaves a trace' flipchart/ whiteboard explanations will also be necessary.

This lesson is split into 7 topics, each with a related learning outcome as follows:

1. WHO IS A WILDLIFE CRIME SCENE RESPONDER?

Understand who is considered a wildlife crime scene responder as well as who has mandate at the three stages of a crime scene: i) approaching and securing; ii) searching and documenting; iii) evidence collection.

2. WHAT IS A CRIME SCENE?

Understand what constitutes a crime scene and that it is not always a place but may also be an object or person.

3. WHAT IS EVIDENCE?

Understand what can be considered evidence at a crime scene and how it can be linked to a crime and to a suspect via the investigative triangle.

4. GUIDING PRINCIPLES – 'EVERY CONTACT LEAVES A TRACE'

Understand the principle that 'every contact leaves a trace' and how this can be used to link suspects to evidence or a crime scene, as well as how this can guide a better understanding of contamination.

5. GUIDING PRINCIPLES – 'IF IT ISN'T DOCUMENTED, IT DIDN'T HAPPEN'

Understand the importance of 'if it isn't documented, it didn't happen' and why every action taken at a crime scene, as well as any movement of evidence, must be carefully documented.

6. CONTAMINATION

Understand what contamination is, what the consequences of contamination may be and thus why it should be avoided.

7. INVESTIGATIVE QUESTIONS AND CONSIDERATIONS

Have a broad understanding of investigative questions and how they may guide how you progress when processing a crime scene.

8. CHAIN OF CUSTODY

Have an understanding of the chain of custody and its importance in ensuring evidence is accepted into court.

Upon completion of the seven topics there is a multiple-choice test to assess students' learning in the Introductory lesson.

0.2. SCHEDULE

Topic	Suggested timing
Introduction to the course and any housekeeping / questions	30 mins
Topic 1	
'Who is a wildlife crime scene responder and what is their mandate?'	30 mins
Topic 2	
'What is a crime scene'	20 mins
Topic 3	
'What is evidence'	20 mins
Topic 4	
'Guiding Principles – "every contact leaves a trace"'	30 mins
Topic 5	
'Guiding Principles – "if it isn't documented, it didn't happen"'	20 mins
Topic 6	
'Contamination'	20 mins
Topic 7	
'Investigative questions and considerations'	1 hour
Topic 8	
'Chain of Custody'	30 mins
Learning check	30 mins

0.3. LESSON CONTENT

Topic 1: Who is a wildlife crime scene responder & what is their mandate?

Resources required: Wildlife Crime Scene Guide for First Responders – p.2-3

Suggested time: 30 minutes

By the end of this topic students should understand who might be considered a wildlife crime scene responder, who has mandate to act when a suspected crime scene is discovered, to what extent a mandated person can proceed with processing a crime scene, and what will happen if a non-mandated person engages in the activities of a wildlife crime scene responder.

BACKGROUND:

There are a number of definitions of 'Crime Scene First Responder' and this is likely to vary given the country you are in and the level of accessibility available to crime scene investigators. This is detailed in the *Wildlife Crime Scene Guide for First Responders* (p.2) and should be introduced accordingly. The most important issue is who has mandate to act following the discovery of a suspected wildlife crime scene. Should a non-mandated person act at a crime scene it is possible for much of the evidence to be rendered inadmissible by the court or undermined by the defence, jeopardising an investigation and potentially resulting in failure to prosecute. Due to the differences in each country's laws, it is important that you know who has mandate within the country that the students come from. The Wildlife Crime Scene Guide for First Responders and these lessons are divided into three mandate levels (as discussed on p.3 of the Guide) and this should be highlighted to the students. It is likely mandate will be restricted to certain activities, as defined in the *Wildlife Crime Scene Guide for First Responders* (1. Approach and secure; 2. search and document; 3. evidence collection).

ACTIVITIES:

1) Group Discussion: While you should be aware of the mandate of the students in advance, it is useful to discuss the details of their mandate during the lesson. It is also useful to consider who else may be considered a wildlife crime scene responder and what they may or may not be allowed to do, for example, what mandate do safari guides or pilots have if they find a suspected crime scene (possibly none)?

2) Exercise: On a board, ask the students to suggest different types of people who may find or arrive at a crime scene. For example: anti-poaching patrol, safari guide, police officer, cattle herder, hunter etc. Once you have a list, discuss what mandate each of these people may have at a crime scene.

PROMPTS:

• It is likely that officers attending a course such as this will know what mandate they have, and it is advisable that you ask them to clarify their positions and what they are aware of. If they do not know it is imperative that they (or you) find this information out.

• Make sure you cover the types of mandate discussed in the *Wildlife Crime Scene Guide for First Responders* and discuss each of these levels while running the exercise.

Topic 2: What is a crime scene?

Resources required: Wildlife Crime Scene Guide for First Responders – p.4

Suggested time: 20 minutes

The students should understand that a crime scene is any area in which a crime is suspected to have occurred or any location at which evidence linked to a crime may be found; this may include an outdoor or indoor area, a vehicle, a suitcase, or even a person. They should understand that most of the principles learnt during this course can be adapted and applied to many different types of crime scene.

BACKGROUND:

The primary aim is to ensure students understand that what is considered a crime scene may not always be obvious but if the basic principles of crime scene investigation are well understood they can be applied to most situations. The notable exception is when the crimes scene is a person; in such cases issues surrounding privacy and human rights need to be taken into account. Suspect apprehension and searching will not be covered by this course.

ACTIVITIES:

1) Group Discussion: This is a good opportunity to get the students to begin engaging with you as their instructor, as well as each other. Ask the class to give you a few examples of different types of crime scene and write their answers on a board. You can discuss each idea in turn.

PROMPTS:

- To encourage discussion/tease out answers you will likely have to guide them and so can ask leading questions such as, **"Can a suitcase be a crime scene?**" or "**Can a person be a crime scene?**" Perhaps giving examples of such situations (pangolin scales found in luggage after x-ray; rhino horn found on the person of someone suspected of being a smuggler).

Topic 3: What is evidence?

Resources required: Optional - Whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity the students should have an understanding of what evidence is and how it is used to prosecute a suspect. Importantly, students must know that evidence is equally important to prove both innocence and guilt and a wildlife crime scene responder must process both with equal care.

BACKGROUND:

Evidence is anything that contributes factual information towards answering a question. In a legal investigation, this information may be used to prove a suspect is either guilty or innocent of a charge. Such information may come from a multitude of sources including interviews with suspects or witnesses, however, for the purpose of this course our primary interest is in *physical evidence* left at a crime scene that provides factual information.

ACTIVITIES:

1) Group Discussion: Ask the students to suggest types of evidence that they are aware of. This does not need to be an extensive discussion but should get the students thinking about evidence. Try to encourage them to think about marks, such as foot and finger marks, as well as physical objects. Other types of evidence that can be discussed include digital (photographs or phone records), and trace evidence (things that cannot be seen with the naked eye such as DNA).

ADDITIONAL POINTS:

- When discussing witness evidence, only observations (gathered by one of your 5 senses) should be considered and not opinion.
- All evidence should be considered, including evidence that may exonerate a suspect.

Topic 4: Guiding Principles – 'every contact leaves a trace'

Resources required: Wildlife Crime Scene Guide for First Responders – p.6; UV powder and UV torch

Suggested time: 30 minutes

By the end of this activity students should understand Locard's principle that 'every contact leaves a trace' and how it relates to forensics, as well as contamination. You should also discuss primary, secondary and tertiary transfer.

BACKGROUND:

Locard's principle teaches us that every time a person makes contact with something or someone, they leave evidence of the encounter. Such evidence may be more or less obvious (a footprint in mud vs. trace DNA from skin cells), however it is this evidence that we are looking for as crime scene investigators. Similarly, investigators will leave evidence of their own presence on a crime scene and we must ensure this is kept to a minimum and strictly controlled in a way that will cause least impact on an investigation. When evidence is transferred from its source via direct contact, this is known a primary contact. When it is transferred from this primary contact to another object it is known as secondary contact and the amount transferred will be less than with primary contact. As the number of times evidence is transferred via contact increases, the amount of evidence available to be found decreases.

ACTIVITIES:

1) Short lecture: It is important to explain Locard's principle to the class both in terms of evidence left by a suspect and in terms of possible contamination, so they are aware of the principle. However, the idea of 'every contact leaves a trace' is not always understood without demonstration.

2) UV powder demonstration: It is advisable to teach Locard's principle after a break. At the beginning of the break ask one of the instructors to rub a small amount of UV powder onto their hand. While on the break they should approach a number of students and shake their hands or pat them on the shoulder to transfer some of the UV powder. Do not tell the students what you are doing. The instructor may need to subtly add more powder to their hand if interacting with lots of people. When you return to the classroom, ask all of the students who shook the instructor's hand to put their hands up. Also ask the instructor to point out anyone who they patted on the shoulder. Use the UV torch to shine onto the hands/shoulders of the appropriate students to show them how the powder had transferred onto their hands from the instructors. Next, you can run the demonstration for each of them individually, shaking hands one at a time and showing them the transfer of the powder. Finally, ask for three volunteers. Place some UV powder on your hand and, while shining a UV torch on it, hold it up for the class to see. Next, shake hands with the first volunteer and show the class how much powder is transferred. Then ask the first volunteer to shake hands with the second, and the second with the third. They should then each hold up their hand, with the torch shining on it, for the class to see that the amount of powder transferred across reduces each time. During times where direct contact between people is a risk due to a disease epidemic, pandemic, or similar, the instructor can touch objects around the classroom (table, computer, back of a chair etc.) to demonstrate the same ideas. Secondary transfer and the reduction in the amount transferred can be demonstrated by someone touching the powder left on these objects and then transferring it to another object.

PROMPTS:

- If you do not have access to UV powder, chalk or flour could be substituted.
- A good real-world example of primary and secondary transfer is a knife used to butcher an animal with blood on it (primary transfer), which is then placed in a car where it leaves a mark on the seat (secondary transfer).
- Be sure to discuss how this can make it difficult to directly link someone to a crime scene as they can use secondary transfer as a way to argue that they did not pick up the evidence (e.g. stain on some clothing) at a crime scene, instead stating that it must have come from contact with another person.
- This is a good opportunity to discuss how such transfer relates to evidence contamination, either from one item to another or from a first responder onto an evidence item.

Topic 5: Guiding Principles – 'if it isn't documented, it didn't happen'

Resources required: Wildlife Crime Scene Guide for First Responders – p.6

Optional -whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity, the students should understand that everything they observe at a crime scene or action they take with evidence must be documented if it is to be usable in a court. They must also understand that if they do not document something at a crime scene it cannot be added to their report at a later time and that anything they do document is disclosable to the court.

BACKGROUND:

No matter how good a person's visual memory, their recollection will change quickly as time passes and this can cause an investigation to fail. The first law enforcement personnel to respond at a wildlife crime scene are likely to contribute to the investigation through their observations. Observations must be comprehensively recorded as soon as possible after the observation has been made. These original notes must not be discarded after they have been used to compile a report or statement. These notes themselves can become valuable evidence in court.

ACTIVITIES:

1) Lecture: The students should be given an overview of the principle of 'if it isn't documented, it didn't happen', emphasizing the need for documentary evidence in the form of written notes, sketches and photographs. The students must be taught that anything they do not document cannot be added at a later date and that a report is a summary of their documentation, not an extension of it. Furthermore, the students must be taught that everything they document can be disclosed to the court and so extreme care must be taken, especially with consistency across all documentation from a single crime scene.

2) 'Lost in translation' exercise: The lost in translation exercise can be run at any time but is useful in emphasizing the importance of documentation. It is suggested that it is run either during the introductory lesson or during the lesson on documentation (lesson 2), but it is important that it is incorporated early in the course. The exercise is initiated during a break, coffee or lunch, and will require three students at a time. You can run multiple groups if you wish, with three additional students for each group. You will also need to find an object that is unfamiliar to the first student of the group and hard to describe, examples include a piece of scientific equipment or a vehicle spare-part. Take the first student of the group to one side, out of view of the others and check they are unfamiliar with the item you have (if they know what it is you will need to choose a different student or find a different object). Give them the following instructions: they have to examine the object and memorize as much about it as possible without writing or drawing anything. They have 3 minutes. Once the time is up, they must describe the object, to the next student in as much detail as possible. They also have 3 minutes to do this. Finally, the second student must describe the object to the third, again they have 3 minutes. On returning from the break, the third student should be asked to draw the object on the board for the class (no prompting is allowed from the

other students). When this is done you should hold the original object up next to the drawing. The most likely outcome is the drawing looks very unlike the original object – this is what you want. This dissimilarity can be used to highlight how important it is to make detailed documentation of everything you find at a crime scene and not to rely on memory or verbal description.

3) "Kim's game" or memory tray exercise: Out of sight of the students, place around 15 different, small objects onto a tray or table-top. Item might include a pencil, a coin, a watch, a knife etc. Cover the collection of item with a cloth. You can now ask the students to gather around the covered items. Tell them that there are 15 items below the cloth and that once the cloth is lifted they will have 1 minute to memories all of the items and their position. You can now lift the cloth. After one minute, cover the items once more. The students must now write each of the objects they saw and indicate their position by drawing a square, to represent the tray or table-top, with numbers and a label to represent each item's position.

PROMPT AND KEY POINT:

• Ask the students what their experience is with submitting documentation to a court. It may provide interesting examples.

• It is imperative that students understand that they should report what they observe and not their opinions on what may have happened. Their job is to process a crime scene and any evidence without bias, even if this evidence exonerates a suspect. Any bias or opinion presented following the processing of a crime scene can be used by the defense to show that a suspect has been unfairly treated and this can result in a failed prosecution. They should not report anything they do not have evidence for, but they must report all evidence.

Topic 6: Contamination

Resources required: Wildlife Crime Scene Guide for First Responders – p.6

Optional -whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

The students will learn what contamination is and that, as wildlife crime scene responders, they should do everything possible and practical to ensure that a suspected crime scene, and any evidence at the scene, remains uncontaminated. They should also know to document any actions they took to avoid contamination so that they are able to more easily answer challenges they may face in court.

BACKGROUND:

Contamination includes the **addition** of something to a scene or onto a piece of evidence; the **removal** of something from a scene or piece of evidence; the **alteration** of a scene or a piece of evidence. Furthermore, it may happen unintentionally and pass unnoticed, hampering any investigation.

ACTIVITIES:

1) Discussion: Discuss the idea of contamination with the group and how it can affect a court case by casting doubt on any evidence collected. Introduce the concepts of contamination by addition, removal and alteration with examples of each of these, emphasizing why it is so important that evidence should not be touched or disturbed in any way until it is time to collect the evidence (collection will be covered in a later lesson). You should also emphasize that they should document any actions they take at a crime scene to avoid contamination (such as wearing single-use gloves or not touching evidence until it is collected) as this can help answer any challenges they may face in court.

2) UV powder exercise: One possible practical to consider at this point is to conduct the UV powder exercise, described in topic 4 of this lesson, but based on the transfer of powder from an evidence item to a person's hand and vice versa, demonstrating how easily contamination can be caused.

KEY POINT:

• There is **no** reason for evidence to be touched until it is being collected. For example, students are often tempted to move evidence so it can be better photographed – this is not permitted (however, a photograph of the object in situ, before being moved for collection, is very important for the benefit anyone who was not at the scene. It is very important the item is photographed without being moved, no matter how tempting!).

Topic 7: Investigative questions and considerations

Resources required: Wildlife Crime Scene Guide for First Responders – p.5

Suggested time: 1 hour

The students will learn how to consider possible investigative questions based on their observations at a crime scene and how consideration of these questions can help them more effectively collect evidence likely to be relevant to a future investigation. In particular, the students should understand the principle of the investigative triangle and how evidence can be used to link a suspect, a crime scene and a victim together.

BACKGROUND:

Most wildlife crime scene responders do not have the responsibility of developing investigative questions that will lay the foundation for any legal action, unless they are investigators. However, in order to effectively make decisions regarding what evidence may be present and of relevance to an investigation, it is useful to consider some possible questions that may form the basis of an investigation of a suspected wildlife crime. These questions can be based around the **'5Ws & 1H'** (**W**ho, **W**hat, **W**here, **W**hen, **W**hy & **H**ow).

ACTIVITIES:

1) Group discussion: Ask the students to suggest a number of questions they may ask to help guide what evidence they might look for at a crime scene. Once you have a good list written down introduce the **'5Ws & 1H'** and ask the students to prompt you to put them into those 6 categories. This is a good way for them to remember what kind of questions they should be considering.

2) Group discussion: Ask the students to consider a number of different crime scenes, for example a poacher's camp or a person smuggling items across a border. For each crime scene, ask the students to identify what might form the three corners of the criminalistic triangle.

KEY POINT:

• The question of whether or not a crime has been committed is important as it will not necessarily be clear when first discovering a suspicious scene. The students should understand that they should treat the scene as if a crime has been committed until criminal activity can be confirmed or discounted.

Topic 8: Chain of Custody

Resources required: Wildlife Crime Scene Guide for First Responders – p.50

Suggested time: 30 minutes

The students will learn about the Chain of Custody and to ensure that every action from crime scene to court is documented. In particular, the students should understand that if any action is undocumented it can result in evidence being rejected by the court. This will be covered again at the end of the course.

BACKGROUND:

The Chain of Custody is the unbroken series of records describing evidence storage, access and movement of the items from the time of evidence collection until presentation in court. The Chain of Custody is the chronological record of who had custody of the evidence at all times. It is of vital importance that each person who handles a specific piece of evidence records a statement of their actions.

This is probably the most vulnerable part of the forensic process and is often scrutinized by legal representatives in court. Failure to prove that the chain of custody conforms to legal and professional requirements is likely to lead to rejection of the evidence.

The chain of custody must always be documented. Until the person who collected the evidence has correctly transferred a piece of evidence to another person, they remain responsible and accountable for that piece of evidence.

ACTIVITIES:

1) Lecture/discussion: The importance of the chain of custody will be repeated in later lessons, however, it is crucial that all wildlife crime scene responders understand the importance of the Chain of Custody and their responsibilities with respect to documentation and any evidence handling. Ensure that all students clearly understand the chain of custody and have an understanding of some of the tools that can be used to ensure the chain remains intact, such as documentation, secure storage and tamper evident packaging.**2) Group discussion:** Ask the students to consider a number of different crime scenes, for example a poacher's camp or a person smuggling items across a border. For each crime scene, ask the students to identify what might form the three corners of the criminalistic triangle.

PROMPTS:

• Emphasize that if the chain of custody breaks down at any point the evidence is likely to be considered inadmissible in court. This is the most common reason for failing to prosecute during wildlife crime cases.

0.4. CHECK LEARNING

Activity	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 0
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	

0.5. INSTRUCTOR NOTES

APPROACHING AND SECURING THE CRIME SCENE
(Refers to Part 1 of the Guide)

Lesson 1

CRIME SCENE ASSESSMENT, APPROACH AND SECURITY

1.1. LESSON OVERVIEW

Suggested timing for the lesson is one afternoon or morning in the classroom with an hour for the practical. Consider having a 30-minute break part way through the classroom lesson. This is a long lesson so the students may have to stay later than usual.

TEACHING AIMS:

Delivery of this lesson must ensure that all students are able to:

- maintain safety for themselves and others when first coming across a crime scene,
- take the correct documentation,
- ensure evidence is not disturbed,
- understand and be able to plan and execute a crime scene approach.

Learning materials in this lesson should include interactive discussion and practical scenarios. The use of either PowerPoint presentations or flipchart/whiteboard explanations will also be necessary; these can be supplemented with video footage.

This lesson is split into **7 topics**, each with a related learning outcome as follows:

1. WHAT NOT TO DO

Understand what not to do upon finding a suspected crime scene.

2. HEALTH & SAFETY

Make an initial health and safety assessment of a newly discovered potential crime scene, mitigating any possible risks and understand when it may be necessary to stay clear of a potential crime scene.

3. CRIME SCENE CONTAMINATION

Understand how a person's presence at a crime scene risks contaminating it and be able to mitigate against this.

4. PLANNING, EXECUTING AND REPORTING YOUR APPROACH

Perform an effective perimeter walk of the crime scene.

5. INITIAL WRITTEN DOCUMENTATION

Be able to record the correct documentation and know that all documentation should be based on personal observations, not opinion and interpretation.

6. PHOTOGRAPHY

Be able to correctly photograph the scene from the perimeter walk.

7. CRIME SCENE SECURITY

Understand how to secure the suspected crime scene.

Upon completion of the seven topics there is a practical exercise to assess their understanding as well as a final assessment.

1.2. SCHEDULE

Topic	Suggested timing
Introduction to the Lesson and any housekeeping or questions	10 mins
Topic 1	
What not to do	10 mins
Topic 2	
'Safety assessment & planning	20 mins
Topic 3	
Initial documentation	15 mins
Topic 4	
Crime scene contamination	10 mins
Topic 5	
Approach	20 mins
Topic 6	
Crime scene photography	20 mins
Topic 7	
Crime scene security	15 mins
Lesson review	20 mins
Practical exercise	60 mins + 5 mins prep
Learning check	30 mins

1.3. LESSON CONTENT

Topic 1: What not to do

Resources required: Optional whiteboard, chalkboard or flipchart

Suggested time: 10 minutes

It is important that the students know what they must not do when approaching a suspected crime scene, and the implications/consequences if this isn't followed.

BACKGROUND:

The primary aim is to ensure students understand that they should not rush onto a crime scene, which would a) put the safety of the responding team at risk, and b) risk contaminating the scene.

ACTIVITIES:

1) Group Discussion: This is a good opportunity to get the students to begin engaging with the lesson by asking them, "What things must you not do when first approaching a suspected crime scene?". Discuss what responders should do if they have to move through a scene to, for example, follow suspects. In this instance, it should be made clear that the reason for moving through the scene is well documented, as well as the action you were required to take and what steps you took to try and avoid contamination as much as possible.

PROMPTS:

Encourage discussion/tease out answers for example;

- Ask "would you go straight into the crime scene to see what has happened?"
- Remind the students that they should not panic or rush their actions when first encountering a crime scene.
- What would you look for to indicate that it was a crime scene and not a natural death? If there is any uncertainty, potential criminal activity should be presumed until it can be ruled out.
- If not raised by the students, it may be worth discussing what to do if suspects remain on the scene and an arrest is considered possible. In such an instance the priority may be to apprehend the suspects; this will be a decision for the officers at the time.

Topic 2: Health & safety

Resources required: Wildlife Crime Scene Guide for First Responders – p.14

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity students should understand how to ensure they, and the rest of their team, remain safe throughout a crime scene approach.

BACKGROUND:

It is important the students understand that while making an initial approach to a crime scene they should always be watching out for each other. This is something that they should be continually reminded of during the later activities. The students must also recognize that safety assessment is ongoing and that new threats can emerge as they work their way around a crime scene or as time passes.

ACTIVITIES:

1) Group Discussion: The instructor should prompt the students to identify a list of things that may pose danger during a crime scene approach and write them on a whiteboard (or equivalent). This should include threats from;

- people (e.g. poachers may still be around);
- animals (including one that may be snared or otherwise injured);
- landscape features (steep slopes, holes etc.);
- the conditions (heat, cold, lightning, darkness).

2) Once the students have identified a good suite of possible threats, discuss how you might mitigate against each of the threats identified.

PROMPTS:

- If they do not get the answers themselves, you may need to push them towards the answers you are looking for by asking questions such as, "can the landscape be a threat", "is there anything on the scene that could be threatening?"

- Try and encourage them to bear in mind that, if necessary, they should consider the possibility of requesting backup or retreating from the scene. Ensure they understand they always need to look out for each other, and they may consider having a lookout.

Topic 3: Crime scene contamination

Resources required: Wildlife Crime Scene Guide for First Responders – p.6-7

Suggested time: 10 minutes

By the end of this activity students should be aware of how their activities during an initial crime scene approach can risk the integrity of the scene and how to avoid disturbing the scene.

BACKGROUND:

The students should already be aware of the principle of *'every contact leaves a trace'* and the principles of contamination from the Introductory Lesson but should be reminded of them here.

ACTIVITIES:

1) Group Discussion: The students should already understand the principle of contamination. Split students into pairs. The first student should highlight an action that might pose a contamination risk to the crime scene. Write this on the board. Then ask the second person in the pair to come up with actions to reduce the risk of this contamination. If it is needed, i.e. with difficult examples, ask the whole group to feed back.

PROMPTS:

- The students should understand why it is important that no more than two people should make an initial crime scene approach, one to search and one for safety, reducing the risk of obscuring or otherwise disturbing evidence. Others patrol members should remain within a defined "holding area".
- The students should be mindful NOT to touch anything that is suspected of being evidence.
- Remind the students not to enter the crime scene, but to remain on the perimeter. It is important to note that action taken within the perimeter may require a more senior mandate than a traditional First Responder. This mandate will come from the responder's department and varies from country to country.
- This is a good opportunity to discuss the scale of a crime scene, making them aware than wildlife crime scenes can be spread over large areas and that they will need to make an assessment of the scale of the scene during the planning and while they are making their approach.

Topic 4: Planning, executing and reporting your approach

Resources required: Wildlife Crime Scene Guide for First Responders – p.16-17

Optional whiteboard, chalkboard or flipchart

Suggested time: 10 minutes

By the end of this activity, the students should understand the process of planning and executing their approach to a crime scene in a way that preserves the integrity of the crime scene, maintains their safety, and facilitates accurate reporting.

BACKGROUND:

They should consider all of the previous points made during this Lesson.

ACTIVITY:

1) Lecture: Utilizing the information and diagrams in the *Wildlife Crime Scene Guide for First Responders* talk the students through the protocol for executing a crime scene approach. At each stage of the approach it is important that the students understand why the approach is made in this way. Much of this understanding should emerge out of the previous 4 sections of this Lesson, but you may need to expand. This is an important section so take your time over this and engage each of the students to ensure they fully understand.

KEY POINTS:

Students should understand;

- how to plan the size of their perimeter walk, considering visibility, terrain, the possible distribution of evidence and their safety.
- that if there are more than two people, only two people should make the perimeter walk. The remainder of the team should stay at the holding area where the scene was first spotted and on guard for potential danger. One of the pair should be walking ahead, carefully looking for signs of evidence, the other maintaining a lookout for signs of danger.
- That they must take their time, being careful not to step on or otherwise disturb any evidence and remembering to look for evidence in front of them, above them, and to their left and right. Of particular interest are signs of an entry and/or exit point from the crime scene.
- the importance of taking notes as they find items.
- the need to report their findings to the remainder of the team (and other appropriate authorities) upon their return to the holding area.

Topic 5: Written documentation

Resources required: Wildlife Crime Scene Guide for First Responders – p. 6 & 14

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

By the end of this topic the students should understand what documentation is required when making an initial crime scene approach.

BACKGROUND:

You will have already discussed the concept of '*if it's not documented, it didn't happen*', but the students should be reminded of it here. Also, remind the students that they should focus on documenting their observations and NOT their opinions and explain why this is important.

ACTIVITIES:

1) Group Discussion: Ask the students to identify what they think needs to be documented at the crime scene when they first find it. The list on page 14 of the *Wildlife Crime Scene Guide for First Responders* identifies what details they should record. It is important to discuss why each piece of information is required so they know when it is appropriate to record it – for each item ask the students, "why should this be recorded?"

2) Optional exercise: If you haven't already, you may consider running the 'lost in translation' exercise detailed in introductory lesson. This can be run over the tea break and will take an additional 10-15 minutes after the break.

PROMPTS:

• Highlight that there is no such thing as too many notes, the more details the better, so long as they include the important details.

• Remember to remind students that documentation should be continual throughout the crime scene investigation and that they should record all their findings as they encounter them, not just at specified times and definitely not the next day. Ensure the task of keeping notes is delegated to a literate member of the patrol and remind them that there should be at least one official pocket notebook with every patrol for noting down their observations and activities.

• This may be a good opportunity to remind the students they should report the suspected crime to their superiors when possible and appropriate.

Topic 6: Photography

Resources required: Wildlife Crime Scene Guide for First Responders – p.20-21

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

This activity will teach the students how to photograph a crime scene from its perimeter and why photography is an important documentary tool. They will understand that even a small number of photographs, taken from the correct position, can convey a large amount of information about a crime scene.

BACKGROUND:

Once a crime scene has had its perimeter checked and any findings recorded, photographs should be made of the scene to accompany the documentation to allow other persons, such as the prosecution, to understand the context and location of the suspected crime scene.

ACTIVITIES:

1) Lecture: Utilizing the information and diagrams in the *Wildlife Crime Scene Guide for First Responders* talk the students through the protocol for photographing a crime scene from its perimeter. The students should understand why a minimum of four photographs are required (and most likely more) and that they should adjust the position from which a photograph is taken to avoid objects obscuring visibility (they should not move the objects!).

PROMPTS:

• Students should understand that photography should by systematic, to ensure the full extent of the scene is recorded in a way that can be recreated at a later date should it be necessary.

• A minimum of four photographs, one from each side, may cover the full extent of the scene, but students should understand they may need to use their discretion and additional images are likely to be required to get a full overview of the scene.

• It should be made clear that the photographs should be made in such a way as to reduce the number of objects such as bushes obscuring the view of the scene. If the scene is comprised of a car, photographs may need to be taken through windows (do not open doors or windows if you did not discover them that way).

• This is likely to be the first time you have discussed photography with your students, and it may be important to discuss what photographic equipment is accepted by the courts in the country you are in (this is something you may need to find out before running the lessons). It is also important you discuss the fact that if the students use their personal mobile phones, there is the possibility of the phones themselves, not just the photographs, being required by the courts for evidence (this will likely depend upon the country they are operating in).

Topic 7: Crime scene security

Resources required: Wildlife Crime Scene Guide for First Responders – p.18-19

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

Once a crime scene has been successfully approached, the students must understand how it should be secured.

BACKGROUND:

How the scene is secured will depend on the situation and what threats may be faced (i.e. human, animal or weather), but evidence should be protected as well as possible given the circumstances.

ACTIVITIES:

1) Group Discussion: Discuss the ways in which a crime scene can be secured and under what circumstances different types of security may be necessary.

PROMPTS:

- Discuss materials that can be used for crime scene security including both pre-made crime scene tape and improvised items such as string or cut bushes.
- In areas of high human activity or where there is a suspicion the perpetrators may return, it may be necessary for guards to remain at a crime scene. Alternatively, at some more remote crime scenes animals may pose a threat to the integrity of the crime scene.
- The students should understand that care needs to be taken both within and outside the suspected crime scene area in case evidence is found elsewhere. They should also be aware that there can be more than one crime scene in close proximity.

Practical exercise: Initial assessment, approach and crime scene security

Suggested time: 65 minutes

Having completed all the topics above it is time to run a practical exercise. This final activity will be an opportunity for the students to put their understanding of how to assess, approach and secure a crime scene to the test, and for you, the instructor, to check student progress against the Learning Outcomes.

Setup: While the students are not present, place the crime scene items in a large outdoor space, preferably one with a number of obstacles such as trees, buildings etc. There should a central item, representing the carcass of an animal; something like a chair on its side can work well. The other items should be randomly spread over a distance of up to around five metres from the centre (depending on how much space you have). These items could be crisp packets, snare wire, water bottles etc. If possible, create footmarks entering and exiting the scene.

Further away from this central scene, place another of the large objects to represent an animal hidden from view, behind a tree or around the corner of a building. If you are using a chair for the carcass, use another chair but it should stay upright. This object represents another animal that could possibly pose a threat to the group.

To assess larger classes, you may consider setting up a number of crime scenes, but be aware that you will also need multiple instructors to ensure there is an instructor watching over the students actions at each of the scenes.

INSTRUCTION FOR STUDENTS:

Expectations: The students should be divided into small groups similar in size to a normal patrol. This will vary depending on where you are teaching but will commonly be from 2 to 5 individuals (with more than two individuals you may need to repeat the exercise multiple times to ensure all students are competent). Each person must have a notepad. The students should organise themselves so that they all have a role within the exercise. With groups used to working in larger groups they may need to be organised into smaller groups. One person should search, another provides security for the search person, and additional students can take the role of patrol leader/scribe/security/lookout etc.. These individuals do not accompany the perimeter walk.

Explain to the students that while they are on patrol, they encounter a suspected poaching incident. They are mandated to make an initial assessment, approach the scene and secure it. They should not proceed any further.

Take the students to a point ten or twenty metres from the scene you have set up, pointing them in its direction and telling them what objects you have placed represent, (i.e. chairs represent animals, either dead or alive). From there they should enact the procedures they have been learning in this lesson.

THINGS TO LOOK OUT FOR:

- Someone should always be checking for approaching danger (from people or animals).
- Only two people, not the whole team, should walk the perimeter.
- The two students that walk the perimeter should report back.

PROMPTS:

- Make sure every student is taking an active role. You may need to encourage the students by prompting them with leading questions or actively help them if they are looking lost.
- Encourage the team to explain what they are doing as they do it to share the experience.

Observe the students to see what they are doing correctly and what they are missing. You may have to correct and adapt as you go along and as you run more training courses.

The students should be divided into small groups similar in size to a normal patrol. This will vary depending on where you are teaching but will commonly be from 2 to 5 individuals (with more than two individuals you may need to repeat the exercise multiple times to ensure all students are competent). Each person must have a notepad. The students should organise themselves so that they all have a role within the exercise. With groups used to working in larger groups they may need to be organised into smaller groups. One person should search, another provides security for the search person, and additional students can take the role of patrol leader/scribe/security/lookout etc.. These individuals do not accompany the perimeter walk.

Explain to the students that while they are on patrol, they encounter a suspected poaching incident. They are mandated to make an initial assessment, approach the scene and secure it. They should not proceed any further.

Take the students to a point ten or twenty metres from the scene you have set up, pointing them in its direction and telling them what objects you have placed represent, (i.e. chairs represent animals, either dead or alive). From there they should enact the procedures they have been learning in this lesson.

1.4. CHECK LEARNING

Lesson 1 Content	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 1
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	
☐ Have the students successfully and correctly executed all necessary procedures during the practical exercise?	n/a	

1.5. INSTRUCTOR NOTES

CRIME SCENE SEARCH AND DOCUMENTATION

(Refers to Part 2 of the Guide)

Lesson 2

CRIME SCENE SEARCH

2.1. LESSON OVERVIEW

Suggested timing for Lesson 2 is two hours in the classroom, followed by one hour for the practical exercise after a break.

TEACHING AIMS:

Delivery of this lesson must ensure that all students:

- are able to perform a full, detailed and systematic search of a crime scene,
- understand how to record the initial evidence documentation for each evidence item,
- understand that they should not allow any evidence to be collected until the scene is fully searched and documented and that great care needs to be made not to disturb evidence while the search is being made.

Teaching will focus on recommended search techniques, marking the location of evidence items and what written notes should be made for each evidence item (more comprehensive teaching of documentation will be made during lessons 3 & 4).

During this lesson, students will gain knowledge and an understanding of how to make an initial approach of a generic wildlife crime scene whist ensure personnel are safe, evidence is preserved, and documentation is taken effectively. Learning materials in this lesson should include interactive discussion and practical scenarios. The use of either, PowerPoint presentations or flipchart/whiteboard explanations will also be necessary, these can be supplemented with video footage.

This Lesson is divided into **5 topics**, each with a related learning outcome as follows:

1. WHAT NOT TO DO

Understand when and how to enter a crime scene.

2. HOW TO SEARCH

Understand the care and time required to thoroughly search a crime scene.

3. SEARCH PATTERNS

Be able to make a thorough line search of a crime scene in a way that protects the evidence.

4. MARKING EVIDENCE

Be able to correctly mark the position of each piece of evidence, without touching it, while giving each item a number that will link to their documentation.

5. INITIAL EVIDENCE DOCUMENTATION

Be able to correctly document every evidence item found during the search.

Upon completion of the 5 topics there is a final assessment to test if the students have gained each learning outcomes. Skills will also be reassessed in a later exercise that will include the lessons on photography and map making.

2.2. SCHEDULE

Topic	Suggested timing
Introduction to the Lesson and any housekeeping or questions	10 mins
Topic 1	
What not to do	20 mins
Topic 2	
How to search	95 mins
Topic 3	
Search patterns	20 mins
Topic 4	
Marking evidence	20 mins
Topic 5	
Search documentation	15 mins
Lesson review	20 mins
Check Learning	30 mins

2.3. LESSON CONTENT

Topic 1: What not to do

Resources required: Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

It is important that the students understand what they must not do when entering a crime scene to start searching it, and the implications/consequences if this isn't followed. It is important that students know that they should not search a crime scene if they do not have mandate to do so.

BACKGROUND:

The primary aim is to ensure students understand why they should not touch any evidence and that due care and attention must be made to avoid any disturbance of potential evidence.

ACTIVITIES:

1) Group Discussion: It is valuable to have a discussion regarding who has the legal mandate to search a crime scene and how this relates to different wildlife crime law enforcement ranks.

2) Group Discussion: You will have already discussed contamination on day one and this needs to be emphasized. In addition, if evidence is not documented correctly before collection it is likely to be rejected as evidence by the court.

KEY POINTS:

Encourage discussion/tease out answers e.g.

- Ask, "when you find a piece of evidence, what would you not do?"
- Ask, "would you just walk into the crime scene and wander about looking for evidence?"

Topic 2: How to search

Resources required: Wildlife Crime Scene Guide for First Responders – p.14

Optional whiteboard, chalkboard or flipchart

Suggested time: 95 minutes

By the end of this activity, the students should understand how much care and attention is required to effectively search a crime scene and how long a search should take. They should understand the need to look to both sides of their route, above them and anywhere where items may be raised off the ground (e.g. in trees), as well as in any hollows they may find such as animal holes. The students should also understand the importance of looking before they place their next footstep.

BACKGROUND:

It is easy to overlook evidence, or accidentally disturb it in some way, if great care is not taken. This topic should highlight how much care needs to be taken and the need to look at a search area from different directions.

ACTIVITIES:

These two activities can be run separately or simultaneously. If running simultaneously, split the group in half and swap over once each group has finished their first exercise.

1) Practical exercise 1:

• Prior to the lesson you will need to collect 20 or more 'evidence items'. These should be a mixture of items such as snare wire, drinks bottles, sweet wrappers, cigarette butts, lengths of cotton, bottle tops, tomato-sauce (to replicate blood drops) etc. You will also need to find a trail approximately 20 meters long, preferably through some kind of vegetation, or terrain similar to where students may encounter a real crime scene. Place each of the items along the path on both sides, varying the distance from the path. Ensure some are hard to find and others easy. Hang some in trees or bushes at different heights. Items can be close to the path or up to a couple of meters away. Also, place a couple of evidence items such as a cigarette butt and a small smear of tomato-sauce in places along on the path. Make sure you have a record of where each item is on the trail with a sketch map.

• Instruct the students to walk slowly along the path looking for items of evidence, anything that looks 'unnatural'. They can walk as slowly as they would like but, for the purposes of this exercise, they are not allowed to stop (this would not be the case in a real crime scene search, but for the exercise it speeds the task up a little). Tell them they should look up, down, left and right and up to two meters from the path. Remind them to also look on the path. They must write down each piece of evidence they find. **Do not tell them how many items there are.** One by one, and with a gap of a couple of minutes between each student, ask them to slowly walk along the path to search for the items. When they finish the search, they are not to discuss how many items they found or what they found.

• When all the students have finished, ask them each how many items they found. When they have all told you, tell them how many there were in total. It is unlikely they will have found all the items, and this should demonstrate how slowly and carefully they need to search. Finally, walk the path with the students, showing them the location of each item.

PROMPT:

If they have obscured the items on the path, this is a good opportunity to highlight the importance of watching where you step while searching. This exercise should highlight the extreme care needed for a successful search and that they should be looking in all possible places while moving very slowly.

2) Practical exercise 2:

• Prior to the lesson you will need to collect 10 'evidence items'. The items should be very small, such as a sweet wrapper, a cigarette butt, a length of cotton, a bottle top, a screw, a match etc. You will also need to find a square of ground measuring approximately 1meter x 1 meter, preferably on terrain similar to where students may encounter a real crime scene. Mark out the edge of the square with branch or something similar and place each of the items within the area. Each item should be visible, but slightly hidden or obscured from some viewing angles. Make sure you have a record of where each item is located within the square.

• Four at a time, with one student standing at each edge of the square, instruct the students to look for items of evidence, anything that looks 'unnatural'. They are not allowed to move from their position but can crouch if they want to. They must write down each piece of evidence they find. Do not tell them how many items there are. They have up to 5 minutes. When they finish the search, they are not to discuss details of the items they found.

• When all four students have finished, ask them each how many items they found before telling them how many there were in total. If some students missed items, ask them to stand at a different position around the square to find the item. This exercise demonstrates the importance of looking at the ground from different angles.

PROMPT:

This exercise should highlight the difficulty of finding small items even within a small search area and teach them how slowly and carefully they need to search from multiple angles.

Topic 3: Search Patterns

Resources required: Wildlife Crime Scene Guide for First Responders – p.14

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity the students should understand how to correctly make a line search. This lecture will discuss possible search patterns that the students may know but will put the emphasis on instructing them on the 'line search'.

BACKGROUND:

When searching a crime scene, it is easy to miss evidence if you do not cover the entire scene, preferably looking from multiple angles. Every search should be slow and methodical, with repeated searches from different directions being strongly considered, to avoid overlooking evidence.

ACTIVITIES:

1) Group discussion: Ask the students to describe any search methods they are aware of and the advantages and disadvantages of each method. The students can use different search methods if they know they are effective, but this lesson will cover the most commonly used method, the line-search method, as described in the *Wildlife Crime Scene Guide for First Responders.*

2) Lecture: Utilizing the information and diagrams in the *Wildlife Crime Scene Guide for First Responders*, talk through the technique for running a line search.

3) Optional exercise: Consider running the 'lost in translation' exercise detailed in the introductory Lesson if it has not already been completed. This exercise can be started during the break and will take an additional 10-15 minutes after the break.

KEY POINTS:

• Discuss the recommended distance between search team members of an arm's length and how this may be adjusted depending on the terrain being searched.

• Discuss the reason a search may be made from multiple directions – a) to make a more thorough check, b) because some objects may only be visible from a particular angle (refer to the second practical exercise from learning outcome 2).

Topic 4: Marking evidence

Resources required: Wildlife Crime Scene Guide for First Responders – p.6-7

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity students should understand how to mark evidence and what can be used to do this, such as pre-made evidence markers or improvised markers. The students will also understand that they must number evidence as soon as it is found. There will be a reminder that the evidence must not be touched or disturbed in any way during this process.

BACKGROUND:

When searching a crime scene it is easy to lose track of evidence items, particularly on a large crime scene. In order to ensure any evidence can be re-located and that notes can be easily linked to the correct evidence item, it is important that anything found during a crime scene search is marked and numbered as soon as it is found.

ACTIVITIES:

1) Group discussion: Discuss the importance of marking evidence as soon as it is found and giving it an evidence number. Show the students pre-made evidence markers and flags, and demonstrate the use of improvised markers using paper and a stick (and other examples).

KEY POINTS:

- Emphasize that evidence should be marked the moment it is found so it can be easily found again.
- The numbers used to identify items of evidence should not be repeated within the crime scene to avoid confusion.
- When marking, evidence should not be touched or otherwise disturbed.
- When multiple people are searching the crime scene make sure you communicate with the other team members regarding the evidence numbering system you are using.

Topic 5: Search documentation

Resources required: Wildlife Crime Scene Guide for First Responders – p.16-17

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

By the end of this activity, the students should know to make a brief written note of each item of evidence found along with the evidence number it has been given.

BACKGROUND:

Once evidence has been found and marked, it should be recorded in their notebook. These notes will be expanded once the search has been completed.

ACTIVITIES:

1) (Optional) Practical exercise: In the Introductory lesson there are details of 'Kim's game or memory tray' exercise that demonstrated the importance of writing notes. This can be run during this lesson to demonstrate how important simple notes are, if you have not run it already.

PROMPTS:

- Remember to emphasize 'if it isn't written down, it didn't happen'.

2.4. CHECK LEARNING

Lesson 1 Content	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 2
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	
☐ Have the students successfully and correctly executed all necessary procedures during the practical exercise?	n/a	

2.5. INSTRUCTOR NOTES

CRIME SCENE SEARCH AND DOCUMENTATION

(Refers to Part 2 of the Guide)

Lesson 3

CRIME SCENE DOCUMENTATION AND MAPPING

Before beginning this lesson, the class must complete the introductory lesson (Background & concepts), lesson 1 (Crime scene assessment, approach and security), and lesson 2 (Crime scene search).

3.1. LESSON OVERVIEW

Suggested timing for the Lesson will depend on the student's previous experience with maps but is likely to take a full afternoon including a navigation exercise. The final documentation and mapping practical exercise can be run the following day.

TEACHING AIMS:

Delivery of this lesson must ensure that all students:

- are able to **accurately draw a sketch map of a crime scene.**
- know what information a sketch map should detail for the viewer and how to draw a sketch map, including examples of poor cartographic habits.
- have the ability to locate North with the use of a compass, as well as how to use a compass for navigation may need to be taught (this need will be assessed during the course of the lesson).

During this lesson, students will gain an understanding of how and why it is necessary to draw a sketch map. Learning materials in this lesson should include interactive discussion and practical scenarios. The use of either, PowerPoint presentations or flipchart/whiteboard explanations will also be necessary, these can be supplemented with video footage.

This Lesson is divided into **6 topics**, each with a related learning outcome as follows:

1. WRITTEN EVIDENCE DOCUMENTATION

Be able to correctly make written documentation of all evidence items found and understand that all documentation should be based on observations, not opinion.

2. WHY A MAP IS NECESSARY

Understand the importance of making a sketch map of a crime scene.

3. WHAT SHOULD BE INCLUDED IN A SKETCH MAP

Explain what needs to be included on a sketch map.

4.THE AERIAL VIEW

Correctly draw a sketch map of a crime scene from an aerial perspective while incorporating all items learnt from learning outcome 3.

5. TRIANGULATION

Understand and be able to take measurements from three fixed points to triangulate the position of evidence items.

6. LOCATING NORTH ON YOUR SKETCH MAP

Accurately identify North, correctly draw it on a sketch map, and navigate a route using a compass.

Upon completion of the 6 topics there is a final assessment. Skills will also be reassessed in a later exercise that will include all lessons on documentation, including taking notes, map making, and photography.

3.2. SCHEDULE

Topic	Suggested timing
Introduction to the Lesson and any housekeeping or questions	10 mins
Topic 1	
Written evidence documentation	30 mins
Topic 2	
Why a map is necessary	15 mins
Topic 3	
What should be included in a map	20 mins
Topic 4	
The aerial view	20 mins
Topic 5	
Triangulation	20 mins
Topic 6	
Locating North on your map	60 mins
Practical exercise	1 hour 30 mins
Lesson Review	20 mins
Learning Check	60 mins

3.3. LESSON CONTENT

Topic 1: Written evidence documentation

Resources required: Wildlife Crime Scene Guide for First Responders – p.16-17

Optional whiteboard, chalkboard or flipchart

Suggested time: 30 minutes

By the end of this activity, the students should know what details and observations must be recorded for each piece of evidence. They should understand the importance of each detail they must record, focusing on observations, not opinion. Students will also be aware that they should photograph each piece of evidence and map its position on the crime scene, however these two skills will be covered in the next lesson.

BACKGROUND:

Once evidence has been found and marked, notes must be made about each individual item of evidence. If appropriate details are not recorded about the evidence it may be rejected by the courts or undermined by the defence. These notes will be combined with photographs and sketch maps, as discussed later.

ACTIVITIES:

1) Group Discussion: Utilizing the information and diagrams in the Wildlife Crime Scene Guide for First Responders, discuss what observations you should record for each piece of evidence.

2) (Optional) Practical exercise: In the Introductory lesson there are details of a 'lost in translation' exercise that demonstrated the importance of writing notes. This can be run during this lesson if you have not run it already.

PROMPTS:

Remember to emphasise 'if it isn't written down, it didn't happen.'

Topic 2: Why a sketch map is necessary

Resources required: Wildlife Crime Scene Guide for First Responders – p.28-29

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

It is important that the students understand why they are required to make a sketch map of the crime scene

BACKGROUND:

A sketch map creates a visual interpretation of a scene and how elements of the crime scene relate to each other. Such documentation helps a court interpret evidence and understand how it relates to the crime that the suspects are being charged with. Without a sketch map it may be very difficult for people not present at the crime scene to visualize it or make inferences regarding what may have happened.

ACTIVITIES:

1) Group Discussion: This is a good opportunity to get the students to begin engaging with the lesson by asking them, what they think the importance of a sketch map is. Do this before giving them any of your own answers. Write each of their answers on the board and discuss their importance. If there are more reasons that they have not come up with either prompt them or tell them the additional items.

PROMPTS:

Encourage discussion/tease out answers e.g.

- ask "how would you find the crime scene without a sketch map?"
- "do your notes fully picture the scene, could someone replace evidence exactly with just your notes?"

Topic 3: What should be included in a sketch map

Resources required: Wildlife Crime Scene Guide for First Responders – p.29-30

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity students should understand what should be included in a sketch map. Please note: this topic may need to be adapted according to their prior experience with maps and this is down to the instructor's discretion.

BACKGROUND:

It is important the students understand what needs to be included on a crime scene sketch map and why. Each element of a sketch map helps provide more documentation regarding the crime scene and the evidence found, such as the location of the scene, the position of each evidence item at the scene, the landscape of the crime scene, and the orientation of the scene. The students must know to use fixed points to be able to accurately locate the position of evidence items using triangulation. The students must understand and be able to correctly represent the approximate scale of and between objects so that the sketch map becomes a reasonable representation of the scene. Evidence items need not be drawn but can instead be marked with an 'X' or the allocated evidence marker number and labelled appropriately. This is expanded in topic 4. Use the *Wildlife Crime Scene Guide for First Responders* to help you with the discussion.

ACTIVITIES:

1) Group Discussion: The instructor should prompt the students to identify a list of thigs that should be included on a sketch map, write these on a board. A list is provided on pages 29-30 of the *Wildlife Crime Scene Guide for First Responders* but there may be others the students identify or you think are important. Do not discuss point 4 from the Guide (p. 29 - measurements to fixed points), this will be discussed later. For each item, discuss why (?) it is important to include it on a sketch map - some items you will discuss in more detail later (e.g. the North arrow).

PROMPTS:

- If they do not get the answers themselves, you may need to push them towards the answers you are looking for by asking questions such as, "how would someone know who is responsible for drawing the sketch map?" or "how big is this crime scene?"
- Remember to discuss the use of a Key for any unlabeled objects in the sketch map.
- All fixed points must also be well documented, including being photographed.

Topic 4: The aerial view

Resources required: Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity the students should understand why they must only draw objects on a sketch map from an aerial perspective and how to draw items in this way.

BACKGROUND:

Many students are not familiar with drawing objects from an aerial perspective and this ability is essential to accurately draw a sketch map. It is common for students to draw sketch maps that contain a mixture of objects from an aerial and side view on the same sketch map, resulting in confusion for the reader of the sketch map.

ACTIVITIES:

1) Lecture: Explain the difference between a side perspective and an aerial perspective and the importance of ensuring everything in a sketch map is drawn from an aerial perspective. Give the students examples of how objects should be drawn from an aerial perspective. Trees are most commonly drawn incorrectly and provide a good example to start with.

2) Practical: Decide on two or three large objects that might be found at a crime scene. Examples might include a building, a vehicle, a fire pit, a chair etc. Ask the students to quickly sketch the items from a side perspective and from an aerial perspective. This will give you the opportunity to ensure they understand the difference. Ask each of them to show their final sketch to the class so that each member can see many examples and correct any mistakes they may have made.

PROMPTS:

- Drawings do not need to be high quality, just accurate representations.
- Student sketches frequently mix-up and combine the use of both side and aerial views in their sketches, this must be corrected.
- Remind the students that they need to include anything unlabeled in the key, as discussed in topic 2.
- You should discuss how to deal with objects that are above one another from an aerial perspective, for example a campfire shaded by the canopy of a tree. In this instance the campfire can be drawn with a dotted line to show it is below the tree.

Topic 5: Triangulation

Resources required: Wildlife Crime Scene Guide for First Responders – p.16-17.

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity, the students should understand how to use measurements taken from three fixed points, such as trees, termite mounts or rock formations, to record the accurate location of each item of evidence.

BACKGROUND:

Knowing the crime scene location of evidence items is one of the main objectives of a sketch map; however, unless you are able to draw a sketch map to perfect scale, which can be very difficult, it is important to measure an evidence item's distance from **three** fixed points to allow accurate triangulation.

ACTIVITIES:

1) Use the 'triangulation learning material' provided with this Manual to explain what triangulation is and how it works, specifically the importance of using three fixed points.

2) As an optional addition you can convert the learning material into a practical demonstration. Before asking the students to join you, place three objects in a large area outdoors, to represent three fixed points. Select a location for your single evidence item and take measurements to each fixed point. Using one measurement at a time, ask the students to replace the item, showing them the various possibilities for incorrect alternative locations if using just one or two fixed points. For fun, you may like to replace evidence items with students!

3) Sometimes three fixed points are not available and so activity 2 can be adapted to demonstrate how a compass can be used to take a bearing from a single fixed point towards each evidence item. If this is combined with the distances from the fixed point to the evidence items they can be accurately located.

PROMPTS:

- Use of one or two fixed points is less accurate; it is important to use three fixed points.
- If you do not have room on the sketch map itself, the distance from each fixed point to each item of evidence can be drawn on a simple table on another page.
- Natural fixed points are not always available or easily recognizable. Encourage the students to describe what they would do in such instances for example, mark tree trunks, build stone cairns or use a GPS.

Topic 6: Locating North and navigating

Resources required: Wildlife Crime Scene Guide for First Responders – p.20-21

Optional whiteboard, chalkboard or flipchart

Suggested time: 60 minutes

This activity will teach the students how to accurately draw a North arrow on their sketch map and teach them how to navigate using a compass. The requirement for this lesson will be dependent on the students past experience with navigation and map making.

BACKGROUND:

Many students understand a North arrow should be drawn on all sketch maps, however they do not always understand how to do this correctly. In fact, many students place the North arrow pointing to the top of their sketch map, regardless of the true direction of North, making accurately orientating the sketch map very difficult. To avoid this common misunderstanding, you will need to run a lesson on how to read a compass/find North. Students may use a smartphone or a GPS instead of a compass in the field, but it is important they understand the principles of navigation. To reinforce this learning, an exercise in navigation is provided.

ACTIVITIES:

1) Lecture: Use the 'using a compass' learning material provided with this Manual to teach the student the principles of compass navigation. Students should learn both how to determine the direction they are traveling or facing as well as how to follow instructions telling them which direction they should travel or face.

2) Practical exercise: Navigation. This short, fun navigation exercise is a good way to test if students understand and are able to accurately use a compass. A sample handout is included as part of the learning material, however, this will need to be amended according to your specific location.

Setup: You will need to devise a number of routes/courses for the students to navigate. As a suggestion, one course for every 6-9 students works well, although only 3 students should start each course at a time. Each course needs a start point and six additional points that the students navigate through. The course should not be too obvious, for example do not make the entire course follow a walking trail; it should wind unpredictably across the landscape. Each point should be approximately 20m to 100m from the previous point; this can be measured by pacing. Record the bearing in degrees and the straight-line distance from the start to the first point, then from the first to the second point and so on, to enable navigation to the final point. At each location, place a marker such as a brightly coloured piece of card with the bearing and distance to the next point written on the reverse. In addition, each card should bear a single letter so that as a collection the letters found at each point spell the name of a city (six letter names such as HARARE, LUSAKA & MAPUTO work well), and the card at the end point should have a unique symbol (star, triangle, circle etc.) or you can leave a prize for each team. At a single point along the course (whichever point works best) take a bearing to a prominent landmark and record this bearing.

Once this setup is complete, create a set of handouts specific to each course that detail the bearings and distances from each point and the point at which you took a bearing to a prominent landmark (but do not tell the students what the bearing is). See the example in the learning material.

Instructions to students: In groups of three, students must navigate from point to point (all beginning at the start point). The students should take turns to ensure they all understand and have an opportunity to practise. At each point they should record the letter written on the card. At the pre-determined point, they must take a bearing to the prominent landmark you have selected and record it. When they reach the final point, they should record what shape they found (or claim their prize!) and then return to the start point. If you have more than one group navigating a particular course, make sure they start five or ten minutes apart, so they do not overlap and cannot follow each other.

Expectations: The students successfully navigate the course, collect each letter that spells the name of a city, record the correct bearing to the landmark you pre-selected, and can tell you the name of the shape on the last card (or show you their prize!)

PROMPTS:

• You may have to take your time in explaining how to use a compass and the ideas behind it as this can be a novel and complex technique for many people.

• If you are south of the equator, the sun is in the north at midday; if you are north of the equator, the sun is in the south at midday.

• Compasses are designed for either the northern hemisphere or the southern hemisphere. If you are not too far from the equator this should not matter too much, however, where possible ensure you have the correct type of compass.

• It may be helpful to accompany the students to the first point in the practical to ensure they are confident.

• Do not make the course so complex that the students cannot return to the start without the use of the compass – you do not want lost students!

• Many patrols have a GPS or can use an application on a smart phone to find North and for navigation. Encourage them to use a standard datum on their GPS. Their department probably has already identified this but a separate lesson on GPS use may be necessary.

Crime scene documentation and mapping' practical exercise

Suggested time: 1 hour 30 minutes

Having completed all the sections above it is time to run a practical exercise. This final activity will be an opportunity for the students to put their understanding of how to document and map a crime scene to the test, and for you, the instructor, to check student progress against the Learning Outcomes.

Setup: The students should be split into small groups. The number of students in each group will depend on how many students you have, but the groups should be as small as possible and no more than 5. For each group you will need to set up a simple mock crime scene. The crime scenes should be approximately 5x5 meters across and include some objects that can be used as fixed points (trees, buildings etc.) At the centre of the scene you should place something to represent the primary piece of evidence, such as a carcass (large cuddly toys work well if you can source them, otherwise a chair on its side can also work). Scattered around the scene you should place four or five smaller evidence items (for example, a drink bottle, a cigarette butt, a length of rope, a sweet packet, a pen, or any other items you have access to).

Instruction for students: Each group of students needs to produce two things, 1) a sketch map of the crime scene, 2) documentation of the crime scene and of each item of evidence on it. They can be told where each piece of evidence is; this activity is to practice documentation, not searching. Tell the students they have 45 minutes to complete the exercise and that you and the other instructors will circulate to assist where necessary. Do not tell them what to do if they are making mistakes or missing objects, simply ask leading questions to prompt them to correct any mistakes. There will be the chance to correct mistakes they do not pick up on at the end of the exercise.

At the end of the exercise, ask one of the other groups to comment on another groups' sketch map, pointing out both correct AND incorrect things about each sketch map and methods to improve them. You should also point out things in a similar way. The idea is that the groups should learn from each other's mistakes and successes.

Expectations: By the end, students should have an accurate sketch map of the crime scene drawn to scale to accurately reflect reality. Each evidence item should be measured to three fixed points. All objects should be labelled either uniquely or with a key. All objects must be drawn from an aerial perspective. Descriptions of every piece of evidence should be made.

Thinks to look out for: Some of the most common mistakes include:

- Only measuring to one fixed point.
- Not drawing to approximate scale or from an aerial perspective.
- Not including nearby objects such as buildings.
- Not putting a North arrow or incorrectly orienting the North arrow.
- Not describing the condition of a piece of evidence.
- Drawing an item, but not labeling it or including it in written notes.

PROMPTS:

- Make sure every student is taking an active role. You may need to encourage the students by prompting them with leading questions such as or actively help them if they are looking lost.
- There will be mistakes, even in the best sketch maps and documentation; you should be able to make suggestions for improvement.
- If there is something being consistently done incorrectly, it may be worth going over this mistake with the entire class in a separate recap lesson to ensure everyone understands what should be done and why.

Assess if your lessons have been successful by watching to see what they are doing correctly and what they are missing. You may have to correct and adapt as you go along and as you run more training courses.

3.4. CHECK LEARNING

Lesson 1 Content	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 3
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	
☐ Have the students successfully and correctly executed all necessary procedures during the practical exercise?	n/a	

3.5. INSTRUCTOR NOTES

CRIME SCENE SEARCH AND DOCUMENTATION

(Refers to Part 2 of the Guide)

Lesson 4

EVIDENCE PHOTOGRAPHY

Before beginning this lesson, the class must complete the introductory lesson (Background & concepts), lesson 1 (Crime scene assessment, approach and security), lesson 2 (Crime scene search), and lesson 3 (Crime scene documentation and mapping).

4.1. LESSON OVERVIEW

Suggested timing for the Lesson should be approximately half a morning on the classroom learning (after you have completed the practical exercise from the previous lesson), followed by an afternoon practical exercise.

TEACHING AIMS:

This lesson covers photographing items of evidence, not the crime scene itself (as has been covered earlier in the course).

Delivery of this lesson must ensure that all students;

- understand how to photograph a piece of evidence to accurately portray its location and context within the crime scene, as well as what the item is.
- understand what information a series of photographs should convey regarding a piece of evidence as well as how to take photographs which achieve this.
- understand why numbering and scale is required for evidence photography and how this can be achieved, either with purpose made equipment or through improvisation.

Learning materials in this lesson should include interactive discussion and practical scenarios. The use of either, PowerPoint presentations or flipchart/whiteboard explanations will also be necessary.

This Lesson is divided into 4 topics, each with a related learning outcome as follows:

1. WHY EVIDENCE PHOTOGRAPHY IS NECESSARY

Understand the importance of photographing evidence.

2. WHAT SHOULD BE INCLUDED IN AN EVIDENCE PHOTOGRAPH

Understand what needs to be included in a photograph, including a scale reference and an evidence number.

3. OVERVIEW, MID-VIEW AND CLOSE-VIEW IMAGES

Understand evidence should be photographed to provide an overview, a mid-view, and close-view; and be able to correctly take a series of evidence photographs.

4. EQUIPMENT AND DATA

Understand that they must be aware of equipment and legal limitations regarding photography and be able to work with these in mind.

Upon completion of the 4 topics there is a final assessment. Skills will also be reassessed in a later exercise that will include all lessons on documentation, including taking notes, map making, and photography.

4.2. SCHEDULE

Topic	Suggested timing
Introduction to the Lesson and any housekeeping or questions	10 mins
Topic 1	
Why evidence photography is necessary	15 mins
Topic 2	
What should be included in an evidence photograph?	15 mins
Topic 3	
Overview, mid-view and close-view images	10 mins
Topic 4	
Equipment and data	15 mins
Morning Break	25 mins
Lesson Review	20 mins
Activity – practical exercise	60 mins + 10 mins prep

4.3. LESSON CONTENT

Topic 1: Why evidence photography is necessary

Resources required: Wildlife Crime Scene Guide for First Responders – p.34

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

It is important that the students understand why taking photographs of evidence is so important.

BACKGROUND:

The photographing of individual evidence items provides a visual record of the state of a particular item before it was touched by a crime scene investigator. A series of photographs can provide clear and detailed information regarding the relative location of each item with respect to the landscape in which it is found, and the position of other items of evidence.

ACTIVITIES:

1) Group Discussion: This is a good opportunity to get the students to begin engaging with the lesson by asking them what they think the importance of photographs is. Do this before giving them any of your own answers. They should have a good idea from previous lessons. Write each of their answers on the board and discuss their importance. If there are more reasons that they have not come up with either prompt them or tell them the additional items.

KEY POINTS:

It is important you cover position on the crime scene, position relative to other evidence items, the condition of the item (dirty, broken etc.)

Topic 2: What should be included in an evidence photograph

Resources required: Wildlife Crime Scene Guide for First Responders – p.34-37

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

By the end of this activity students should understand what should be included in any evidence photograph.

BACKGROUND:

When photographing an item, it is important that the images contain a record of the item number. This may be hard to see in the distant evidence item photograph, but should be present nonetheless. Close-up images should clearly show the item number. Close-up images should also contain something that provides a scale for the item, such as a ruler or tape measure or familiar object, so the viewer is able to estimate the size of the item.

ACTIVITIES:

1) Lecture: Use the information and diagrams in the *Wildlife Crime Scene Guide for First Responders* to explain that when photographing an item, it is important that the images all contain a record of the item number.

KEY POINTS:

- Evidence should **not be moved** even if it is difficult to take a photograph.
- It is important that anything used to number the evidence item or provide a scale does not come into contact with the evidence.

Topic 3: Overview, mid-view and close-view images

Resources required: Wildlife Crime Scene Guide for First Responders – p.34-35

Optional whiteboard, chalkboard or flipchart

Suggested time: 10 minutes

By the end of this activity the students should understand why evidence photographs should be taken at three different distances: overview, mid-view, close-view.

BACKGROUND:

In order to sufficiently document a piece of evidence using photographs, multiple images will need to be made. Ideally, images of the item should be made at three different distances: overview, mid-view, and close-view. Images taken from afar place the suspected evidence item in context within the scene and show relative positions, this is the overview. Mid-view photographs provide more detail and context. Close-view photographs will provide more fine scale detail such as the condition the evidence was found in, how it was positioned, the type of substrate it was lying on or made from etc.

ACTIVITIES:

1) Lecture: Use the information and diagrams in the *Wildlife Crime Scene Guide for First Responders* to explain the need for photographs to be taken at the three different distances and explain how this covers all the points raised in Learning Outcome 1.

PROMPTS:

- You must emphasize that evidence should **NOT** be touched even if it is difficult to photograph.

Topic 4: Equipment and data

Resources required: Wildlife Crime Scene Guide for First Responders – p.6-7

Optional whiteboard, chalkboard or flipchart

Suggested time: 15 minutes

By the end of this topic students should understand that they need to know what equipment can be used to take photographs, as well as how the data should be stored, in their country.

BACKGROUND:

Many countries have restrictions on who can take photographs that are to be submitted as part of evidence, as well as what type of camera can be used. Furthermore, if a mobile phone is used, it may be necessary, depending on the country, for the mobile phone itself to be submitted as evidence. The rules for each country are different.

ACTIVITIES:

1) Lecture: Discuss these issues with your students. You should already know the rules for the country you are working in, in which case you can teach them what is and is not possible. However, it is worth discussing as individual experiences may differ regarding how laws are interpreted in the courtroom.

PROMPTS:

- Some countries do not allow mobile phones for evidence photography at all.
- Some countries require a dedicated and mandated photographer take the photographs.
- Some countries allow photographs to be taken but an authorized person must accept, print, and compile the photograph album.
- Some countries require specified equipment to be used.

'Replace the evidence' practical exercise

Suggested time: 1 hour 10 minutes

Having completed all the sections for 'part 2' it is time to run a practical exercise. This final activity will be an opportunity for the students to put their understanding of how to document and map and photograph a crime scene to the test, and for you, and for you, the instructor, to check student progress against the Learning Outcomes.

Setup part 1: As for the previous documentation and mapping exercise in the previous lesson, split the students into small groups.

You will need a selection of different pens and pencils and each one must be different in some way from the others. You should also have more pens than groups of students.

For each group of students, you will need to find a location where you are going to place a single pen. These locations should be far apart and completely out of view of the locations for the other groups.

Instruction for students, part 1: Tell the students that each group is going to be taken separately to a different location where you will place a single item of evidence (place this with the students to make it easier to find and take a photo to check later). The students are to document the item of evidence using the methods they have learnt (notes, map and photographs). When they are finished, they should collect the evidence and return to a central location decided by you. Another group, using the notes they are given, is then going to have to replace the item exactly as it was first placed. This includes location, position and condition (i.e. correct place, orientation and if covered by leaves, dirt or grass).

Setup part 2: When the students return with the pens, you should place them all in a group on a table along with a selection of other pens that have not been used as evidence items. Again, all pens **must** look different from each other in some way (different makes, colours etc.). Swap the notes, maps and photographs between groups so they all have another group's notes.

Instruction for students, part 2: Using the new notes they are given, the students must now replace the pen exactly where and how it was placed before. The first task is for the students to select the correct pen.

Expectations: The pen must be placed in the exact position it was before and in the same condition. When the group has achieved this you should check how well this has been done against your own photograph. You should now allow the groups to discuss the quality of the documentation they were given and highlight what could have been done better. You should also make comments on the documentation.

THINKS TO LOOK OUT FOR:

• If it looks like a group is missing a step, you may have to give them a reminder.

• It is common for groups to forget to show how to get to the area in which the evidence is placed. You can prompt them to do this by saying, "will another group be able to get to this area if they don't know where it is?"

PROMPTS:

• Make sure every student is taking an active role. You may need to encourage the students by prompting them with leading questions or actively help them if they are looking lost. Try to give suggestions rather that tell them what they should do if it is at all possible.

• If a group is struggling to use a set of notes to return an item of evidence, you may need to help them get past a stage. Do this but remember to discuss this at the end of the exercise.

• You should have a group feedback session at the end to discuss any issues that were common or particularly important to address.

4.4. CHECK LEARNING

Lesson 1 Content	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 4
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	
☐ Have the students successfully and correctly executed all necessary procedures during the practical exercise?	n/a	

4.5. INSTRUCTOR NOTES

EVIDENCE COLLECTION
(Refers to Part 3 of the Guide)

Lesson 5

EVIDENCE COLLECTION

Before beginning this lesson, the class must complete the introductory lesson (Background & concepts), lesson 1 (Crime scene assessment, approach and security) and lessons 2-4 (Crime scene search; Crime scene documentation and mapping; Evidence photography).

5.1. LESSON OVERVIEW

Suggested timing for the lesson should be approximately one afternoon including the practical exercise.

TEACHING AIMS:

Delivery of this lesson must ensure that all students understand;

1. How to correctly collect an item of evidence while keeping the risk of contamination to a minimum.
2. How to look after the safety of themselves and their team whilst collecting evidence.
3. The students will be instructed on procedures to collect and package evidence.

Learning materials in this Lesson should include lectures, interactive discussion and practical evidence sampling. The use of either, PowerPoint presentations or flipchart/whiteboard explanations may also be necessary.

This Lesson is divided into 4 topics, each with a related learning outcome as follows:

1.HEALTH & SAFETY

Understand and be able to look after the safety of themselves and others before, during and after collecting evidence.

2. AVOIDING CONTAMINATION

Understand what needs to be included in a photograph, including a scale reference and an evidence number.

3. SAMPLING AND PRESERVING BIOLOGICAL EVIDENCE

Understand when to sample biological evidence and be able to correctly perform basic sampling and preservation of the material to facilitate forensic analysis.

4.EVIDENCE LABELLING & STORAGE

Understand the importance correctly labelling and packaging evidence and be able to correctly perform these activities in a way that maintains chain of custody and reduces contamination risk.

Upon completion of the 4 Topics there is a final practical. Skills will also be assessed during an evidence sampling exercise at the end of part 3.2.

5.2. SCHEDULE

Topic	Suggested timing
Introduction to day and housekeeping / any q's	10 mins
Topic 1	
Health & safety	20 mins
Topic 2	
Avoiding contamination	20 mins
Topic 3	
Sampling evidence	30 mins
Topic 4	
Evidence labelling and storage	20 mins
Recap	15 mins
Practical exercise	1 hour 15 mins
Check Learning	60 mins

5.3. LESSON CONTENT

Topic 1: Health & safety

Resources required: Wildlife Crime Scene Guide for First Responders – p.40.

Suggested time: 20 minutes

It is important that the students understand the risks associated with collecting evidence and what precautions they and their team should take.

BACKGROUND:

All wildlife crime scene responders must be aware of the potential presence of poisons or pathogens at a crime scene. Some of these can be hazardous through direct contact with skin, ingestion or inhalation. For this reason, responders should always wear single-use gloves and face masks or the best alternative available to cover both nose and mouth. Glasses to protect the eyes are also advisable.

If collecting firearms, responders must have training/knowledge to perform a firearms safety check and to make the firearm safe.

ACTIVITIES:

1) Group Discussion: Discuss with your students what risks they think may be posed to their health and safety whilst collecting evidence and what procedures can be taken to avoid risks. There are a number of topics that should be included but they are broadly divided into mechanical risks (sharp blades, firearms etc.) and biological risks (poisons, pathogens and animals). Much of the safety precautions will have been covered earlier in the course, however, there are a number of risks that increase during collection. You should ensure your discussion covers topics including personal protective equipment (single-use gloves, masks etc.) to mitigate against disease risk and possible poisons, and ensuring firearms are made safe by someone who is knowledgeable with such equipment. If disease is suspected, the students should know they should contact a veterinary surgeon where possible. The students will have an opportunity to practice using personal protective equipment in the practical exercise at the end of this lesson.

POMPTS:

Any weapon safety check should be documented, dated and signed in the responder's notebook as well as on the packaging into which the weapon is placed.

Topic 2: Avoiding contamination

Resources required: Wildlife Crime Scene Guide for First Responders – p.40-41.

Suggested time: 15 minutes

By the end of this activity students should be able to correctly take appropriate precautions to avoid contamination when collecting evidence.

BACKGROUND:

Students must know to proceed with extreme care at this stage and that this should be the first-time evidence may be touched. It is during collection that accidental contamination, damage or even destruction of evidence is most likely. Students must learn the importance, if possible, of wearing single-use gloves when collecting evidence. Even if wearing single-use gloves, it is possible to destroy trace evidence so students must be shown how best to handle evidence items to avoid this, thinking about where trace evidence is least likely to be found on an item and only handling it at these points. Smaller items should not be directly handled, as they may be easy to damage, metal items should NOT be handled with metal instruments. It is crucial that the students understand that each evidence item should be packaged separately, and they should never come into contact due to the risk of cross-contamination.

ACTIVITIES:

1) Discussion: Discuss with the group their understanding of contamination and how this relates to evidence collection. They should already have a good understanding from discussions around contamination earlier in the course. Prompt them to propose ways they can avoid contamination. It is important they understand why different evidence items should never come into contact with each other. The students should understand how items used to collect items such as tweezers can contaminate evidence via secondary transfer if not cleaned between evidence items.

2) Demonstration: A demonstration of how to collect evidence of different types is advisable. This should include safety and contamination measures (single-use gloves, mask, eye-protection), how different items can be picked up either using instruments such as tweezers or carefully with your hands, being careful not to smudge areas that may have fingermarks, blood smears etc. (examples are in the *Wildlife Crime Scene Guide for First Responders*).

PROMPTS:

- Single-use gloves should be changed between the collection of each evidence item?).

Topic 3: Sampling and preserving biological evidence

Resources required: Wildlife Crime Scene Guide for First Responders – p.42.

Suggested time: 30 minutes

By the end of this activity the students should have a basic understanding of how to take samples from biological evidence as well as how to store those samples prior to transfer to a forensic laboratory.

BACKGROUND:

At wildlife related crime scenes, the students are likely to come across a wide range of biological evidence requiring specific methods of sampling and storage. While this *Instructor's Manual* is not designed to teach technical evidence collection techniques, there are a few key evidence types that the students should be able to collect in the correct way.

ACTIVITIES:

1) Discussion: A discussion about biological evidence should take account of the forensic service capacity of the country in which you are training, however, it is useful to talk to the students about what information can be gained from a biological evidence item. It is also important that students understand these procedures even if the country does not yet have capacity as this situation may improve in time. You should discuss what can be sampled, what questions it may help answer, how to sample and how to store different sample types. It is also advisable that you talk about ideal sampling equipment and also what can be improvised.

2) Demonstration: Demonstrate how to correctly sample hair, blood and tissue for the class. It may be advisable for each instructor to demonstrate to a smaller group of students separately. Demonstrate how to avoid contamination, for example by not touching your face or any other objects while wearing single-use gloves, not using the same implements on multiple samples, having one person sample the item whilst another labels, holds collection tubes etc.

3) Practical: At the end of this lesson is a practical exercise incorporating elements of learning outcome1-4.

POMPTS:

• For both the practical and demonstration you can use whatever equipment is available to you, however, it is worth spending time talking about and even demonstrating alternatives so that students have the knowledge and understanding to improvise should the situation require it.

• Show students how to see if a hair has a follicle still attached and explain this is where most of the DNA is and that it is important that hair samples include the follicle.

Topic 4: Evidence Labelling & storage

Resources required: Wildlife Crime Scene Guide for First Responders – p.43-48

Optional whiteboard, chalkboard or flipchart

Suggested time: 20 minutes

By the end of this activity students should understand that individual evidence items should be stored separately, even if they appear to have come from the same source. They should also know how to correctly label evidence items. The students will know how to use alternatives to premade evidence bags for cases when they are not available, or items do not fit.

BACKGROUND:

From the moment evidence items are collected at a crime scene it is important that they are stored in a way that minimises any chances of contamination. Evidence can include physical items or digital items such as photographs. If evidence is not correctly stored the defence may try to introduce doubt and raise the possibility of contamination. This may result in the item of evidence being rejected during trial. It is the responsibility of the wildlife crime scene responder to reduce the likelihood of such doubt.

Each item collected from a crime scene should be given a unique identifying number to ensure there is no way to confuse different evidence items, even when they are in the custody of someone that did not collect them.

ACTIVITIES:

1) Discussion: Demonstrate the unique ID labeling method as illustrated in the *Wildlife Crime Scene Guide for First Responders* and explain how to complete the details on the front of an evidence bag.

2) Demonstration: Show the students how they can improvise with packaging using (clean) plastic bottles, plastic bags, envelopes, paper wrapping etc. You should also discuss items that are too big to package, or what to do if no form of packaging is available. This includes just labeling the item and transporting with care.

3) Demonstration: Teach the students how packaging such as envelopes can be sealed with tape and a signature to be made tamper evident.

4) Practical: At the end of this lesson is a practical exercise incorporating elements of learning outcome1-4.

PROMPTS:

- You may need to explain that the 'chain of custody' part of the evidence bag does not need filling in at this stage, only requiring completion when handed to another person to relinquish custody of the evidence item.
- If improvised packaging has been used, it should be recorded in the responder's notebook as it is possible that contamination can be ruled-out if it is detected.
- Highlight the risks of handwriting and the use of similar symbols, such as 1 and I, 5 and S, 0 and O etc.
- Highlight that responders with a mandate to collect evidence should carry basic, appropriate sampling/storage equipment.
- It should be recommended that the students establish and maintain communication with lab/experts whom they can contact if they have questions.
- In the field, students should not be afraid to try. It is better to collect potential evidence in a less than ideal manner than to not collect it at all.

Evidence collection practical - sampling blood, hair and tissue (meat)

Resources required: Wildlife Crime Scene Guide for First Responders – p.42

Optional whiteboard, chalkboard or flipchart

Suggested time: 1 hour 15 minutes

Once you believe the students have understood the theory of what you have taught it is time to run a practical exercise to test all learning outcomes covered in Lesson 5.

Setup: Organise the students into pairs. Each pair should be provided with two pairs of sterile single-use gloves, tweezers, a scalpel or knife, a ruler, two envelopes, a small sealable plastic bag and some salt. Some of these items (e.g. envelopes and salt) can be used to show the students what to do should they not have the ideal equipment. This can be adapted depending on the equipment the students are likely to have when they are on patrol. Consult the *Wildlife Crime Scene Guide for First Responders* for additional content (p.11 & 42). Each pair should then be given a plate with a small piece of meat on it (from which they can sample blood and tissue) and some hairs. A piece of meat with skin and hair still attached is ideal for the students to practice plucking hair.

Instruction for students: First the students should put on sterile single-use gloves and the face mask as they are about to handle evidence. You may consider not prompting them to do this at first but instead wait to see who does and who does not put single-use gloves and mask on prior to handling the evidence. You can then use this opportunity to reinforce the point by making it clear that anyone who has handled the evidence without single-use gloves may have contaminated the evidence.

Next, the students need to photograph each type of evidence using the knowledge they have gained in previous lessons. You may wish to prompt them to use the ruler for scale and to include a unique evidence number within the photograph. Alternatively, you could assess if they do this without a prompt. In either case, both are an essential requirement for this exercise. They should also document the evidence in their notebooks.

Following documentation, the students should sub-sample each type of evidence by a) placing a few hairs into paper envelopes; b) swabbing the blood with tissue or a premade-swab and placing in a paper envelope; c) sampling a small sample of meat (no bigger than 1cm3) and placing it in a small plastic bag or a sealable, sterile tube, along with enough salt to immerse the sample. The students should be praised if they take photographs of the evidence both before and after sampling; you can also use them as example to explain to the class the benefit of photographing of evidence as it is processed.

Finally, each piece of sampled evidence should be placed into a separate evidence bag, sealed plastic bag, or sealed envelope, which should be labelled. Whatever is used to store the evidence should be made as tamper evident as possible. If you have limited supplies, you may only require them to bag and label one of the evidence items.

Expectations: Students should sample the 'evidence' carefully and in a way that is least likely to cause contamination ensuring each item of evidence is correctly photographed (as per lesson 4), documented, labelled and recorded. They may wish to refer to the Wildlife Crime Scene Guide for First Responders. The tissue (meat) should be preserved in the salt.

THINKS TO LOOK OUT FOR:

• Watch out for cross contamination issues when wearing the single-use gloves, many students assume that just because they have single-use gloves they cannot cause contamination.

• Hopefully the students will ask about contamination risk from using the same tweezers for two different items - preferably they should use single use disposable tweezers, however, a weak bleach solution may be used to clean tweezers instead of disposing of them.

• Check that the sample of tissue they take is not too large – no more than $1cm^3$.

• Ensure students are recording details of the evidence items correctly and giving each a unique evidence item number.

PROMPTS:

• This is a good example to check any difficulties with correctly using any protective equipment you can provide, particularly single-use gloves and face masks.

• You may wish to use this exercise as an opportunity to demonstrate and discuss alternative ways to package or label evidence if evidence bags are hard to acquire or if samples are too large to place in bags.

• The ability to run more or less advanced techniques will be determined by your knowledge as well as the availability of the appropriate consumables and equipment. This exercise should be adjusted accordingly.

Assess if your lessons have been successful by watching to see what they are doing correctly and what they are missing. You may have to correct and adapt as you go along and as you run more training courses.

5.4. CHECK LEARNING

Lesson 1 Content	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 5
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	
☐ Have the students successfully and correctly executed all necessary procedures during the practical exercise?	n/a	

5.5. INSTRUCTOR NOTES

EVIDENCE COLLECTION
(Refers to Part 3 of the Guide)

Lesson 6

EVIDENCE DOCUMENTATION

Before beginning this lesson, the class must complete the Introductory lesson (Background & concepts), lesson 1 (Crime scene assessment, approach and security), lessons 2-4 (Crime scene search; crime scene documentation and mapping; evidence photography), and lesson 5 (Evidence collection).

6.1. LESSON OVERVIEW

Suggested timing for the Lesson should be approximately 1 hour 30 minutes. The remainder of the day will be dedicated to the final practical exercise.

TEACHING STAFF NOTES:

Delivery of this lesson must ensure that all students understand;

- how to document all the evidence they have collected and are able to prepare a written statement.
- how such documentation, especial digital documentation such as photographs should be stored.
- how to transfer evidence and ensure that the chain of custody remains complete.

A failure in the chain of custody is one of the most common reasons for a conviction to fail and so it is essential every effort is made to prevent this happening.

Learning materials in this Lesson should include lectures and interactive discussion. The use of either, PowerPoint presentations or flipchart/whiteboard explanations may be necessary. At the end of this lesson a practical exercise practising all of 'part 3' should be undertaken.

This Lesson is divided into **2 topics**, each with a related learning outcome as follows:

1. EVIDENCE DOCUMENTATION

Correctly and concisely document all collected evidence.

2. TRANSFER OF EVIDENCE

Understand the importance of the Chain of Custody and how it should be maintained through the correct completion of the appropriate chain of custody documentation while transferring evidence.

Upon completion of the two topics there is a final assessment. Skills will also be assessed during a complete evidence sampling exercise.

6.2. SCHEDULE

Topic	Suggested timing
Introduction to day and housekeeping / any q's	10 mins
Topic 1	
Transfer of evidence	20 mins
Topic 2	
Evidence documentation	20 mins
Recap	10 mins
Check Learning	30 mins

6.3. LESSON CONTENT

Topic 1: Evidence documentation

Resources required: Wildlife Crime Scene Guide for First Responders – p. 48-50.

Suggested time: 20 minutes

It is important that the students understand what documentation must be recorded for all evidence collected and how to store such information.

BACKGROUND:

A written record of evidence collection and storage is essential. The documentation is likely to be used in court to explain what happened during crime scene processing. Photographic documentation can be extremely useful to support a written record. The written record should be made as soon as possible after the evidence has been collected.

All photographs taken as part of the investigation must be treated as crime scene records and stored appropriately. Even if photographs are not being included in a written statement, they must be stored in the event that they are requested for submission to court. What constitutes appropriate storage is likely to be dictated by the enforcement agency and you should establish this prior to the course.

ACTIVITIES:

1) Lecture/discussion: The students should already know how to make detailed notes for each item of evidence observed at the crime scene; however, they should make a complete report reflecting everything they have observed and done at the scene as soon as possible after they have completed processing the scene. As well as the detailed notes already recorded, the students should know how to document the information laid out on p.49 of the *Wildlife Crime Scene Guide for First Responders.*

The requirements for a written statement may differ depending on the judicial system of the country and where possible this should be reflected in your teaching material. The students must know that all photographs taken as part of the investigation must be treated as crime scene records and stored appropriately. Once again, what is considered appropriate storage may be dictated by local legislation, however, general recommendations are laid out in the *Wildlife Crime Scene Guide for First Responders.*

POMPTS:

- The students must understand that all information in the report must correspond to their notes.
- The students must be aware that all available information including notes, sketches, drawings or photographs can be requested for inclusion in the court files at a later date and so appropriate preparation and storage of these documents is essential.

Topic 2 – Transfer of evidence

Resources required: Wildlife Crime Scene Guide for First Responders – p. 50-52

Suggested time: 20 minutes

By the end of this activity students must understand the importance of a chain of custody, how it is maintained, and their responsibilities with regards to evidence transfer.

BACKGROUND:

The Chain of Custody is the unbroken series of records describing evidence storage, access and movement of the items from the time of evidence collection until presentation in court. The Chain of Custody is the chronological record of who had custody of the evidence at all times. It is of vital importance that each person who handles a specific piece of evidence records a statement of their actions.

Evidence is only admissible in court if it can be proven that it has not been tampered with between the crime scene and the courtroom. **This is probably the most vulnerable part of the forensic process and is often scrutinized by legal representatives in court.** Failure to prove that the chain of custody conforms to legal and professional requirements is likely to lead to rejection of the evidence.

The chain of custody must always be documented. Until the person who collected the evidence has correctly transferred a piece of evidence to another person, they remain responsible and accountable for that piece of evidence.

ACTIVITIES:

1) Lecture/discussion: You should talk through the importance of the chain of custody with the students, highlighting the point that "if it's not documented it didn't happen". The students must understand that at all times:

- It must be known who is responsible for evidence.
- It must be known where the evidence is.
- It must be known who has access to it.
- The written information must demonstrate that the evidence could not have been tampered with at any time.

In practice this means that the students must know what should be recorded during transfer of evidence as per the *Wildlife Crime Scene Guide for First Responders.*

2) Demonstration: Using both a premade evidence bag as well as an improvised evidence container such as an envelope, you should demonstrate how to complete the requirements for the chain of custody, and demonstrate the checks that should be made when handing over or receiving a piece of evidence and changing who is the custodian.

3) Practical exercise: Using the evidence collected and packaged in lesson 5, ask the students to transfer each item of evidence to one of the instructors. The instructors must ensure the students complete the transfer correctly and are requesting checking that the receiving instructor also correctly completes the transfer.

PROMPTS:

- You might consider making deliberate errors when demonstrating the procedure or receiving their evidence to ensure the students are checking what is being done during this process. Make sure to point out your deliberate mistake if they do not catch it!
- The students must know that the transfer must be recorded on both the evidence item (or on a document that accompanies the item), and in their own notes.
- Emphasize that if the chain of custody breaks down at any point and cannot be traced, the evidence is likely to be considered inadmissible in court. This is the most common reason for failing to prosecute during wildlife crime cases.

6.4. CHECK LEARNING

Lesson 1 Content	Time	Resources required
☐ Run the multiple answer test to assess their understanding	15 mins	Multiple answer test 6
☐ Discuss any learning outcomes for which the students show limited understanding	15 mins	
☐ Have the students successfully and correctly executed all necessary procedures during the practical exercise?	15 mins	

5.5. INSTRUCTOR NOTES

FINAL PRACTICAL EXERCISE

While this Instructor's Manual does not include formal individual assessment, this final exercise could be used as the basis for an individual assessment of overall understanding and capability.

The final practical exercise tests all the skills that the students have learnt throughout the course and should represent a real crime scene from point of discovery until submission of evidence. It gives you a final chance to observe the students and correct any mistakes they are making. As much as possible, the students should be left to work on their own, unguided. However, the instructors should be present to observe and ensure the students have learnt to carry out the process correctly, making corrections and answering questions from the students where necessary.

SETUP:

You will need to set up one crime scene for every 4 or 5 students. Each scene should be far enough away from the others so that they do not interfere with each other. Each scene does not need to be the same, in fact a diversity of scenarios is beneficial for the students to feed back to each other at the end.

As suggestions for possible scenarios you could use a poaching scene, a poacher's camp, a car stopped at a roadblock, a room used to process wildlife parts, or anything else you can think of. Where possible, you should try and make the scene as realistic as possible. If you have contacts with the relevant authorities, the use of previously seized wildlife products can enhance the realism, for example, bullet casings, tusks/horns, skins, rifles (decommissioned), carved products, snares etc. If these items cannot be acquired, it is perfectly acceptable to use improvised alternatives such as large cuddly toys to replace a carcass. You can use tomato sauce to represent blood smears or droplets, old wire in place of a real snare or a metal pole as a rifle, however, in such cases you will need to inform students what they represent.

The crime scenes can cover a large area (e.g. a poacher's camp) or be restricted to a very small space (e.g. a snare location), however, try and place a similar number of evidence items for the students to work with at each one. In a large area, you may consider using more obvious evidence items than in a smaller space.

Be creative and realistic with evidence. A few ideas are provided here:

Bullet casing	Notepad or accounts ledger
Cigarette butt	Axe or saw
Drink bottles	Cooked food
Unloaded rifle	Carved ivory
Blood smeared knife	Butchered meat
Blood stains	Hairs
Footprints	A key
Snare	Bow and arrow
Cell phone	Bicycle

For each scene, you must develop a story for how the students were alerted to the scene. For example;

- Tourists on a game drive spotted a dead elephant in the park and reported it to you.
- You pulled over a car at a roadblock after a tip-off about smuggling pangolin scales – the passenger is being interrogated by police, and you are processing for evidence.
- You spotted two suspicious people running away from a campfire and on investigating found butchered meat.

You should also designate an area for evidence receipt. This is where, towards the end of the exercise, the students will submit evidence and transfer custody to the instructors.

INSTRUCTIONS TO STUDENTS:

The students are to process a scene from start to finish, including initial approach, security and scene documentation, crime scene searching, mapping, photography and documentation, collection of evidence, labelling and storage, and finally evidence transfer.

Each group of students should be shown to the edge of the crime scene and given the scenario that relates to the scene. From there they must run the crime scene. You will be observing and can guide (perhaps swap between scenes as each instructor may notice different things that need to be corrected with the students).

Once evidence is collected and documented, the students should submit the evidence via the correct chain of custody process.

EXPECTATIONS:

You should ensure each stage of the process is being correctly performed and if there are mistakes these should be corrected during the exercise. At the end of the exercise, you should also go through all their notes, sketch maps and photographs to check they have correctly and accurately documented everything.

You can expect this exercise, including feedback and checking their documentation to take most of a day. If you start the practical exercise in the morning, you can reasonably expect the students to have collected all the evidence by lunchtime. You can then transfer the evidence and check their reporting after lunch.

Once everyone is finished, ask each group of students to walk the rest of the class through their crime scene, discussing what they did at the scene and why. Allow polite constructive feedback from the class. You should also give feedback about what they could improve and what they did particularly well.

Finally, gather the whole group together to give final feedback and take any last questions.



UNODC

United Nations Office on Drugs and Crime

Vienna International Centre
P.O. Box 500, 1400 Vienna, Austria
Tel.: (+43-1) 26060-0
Fax: (+43-1) 263-3389
www.unodc.org

