

Crime Scene Investigation

Content Area: **Science**
Course(s): **CP Forensics**
Time Period: **Marking Period 3**
Length: **2 weeks**
Status: **Published**

Course Pacing Guide

Unit	MP	Weeks
Crime Scene Investigation	3	2

Unit Overview

In this unit, students learn the primary responsibilities of the first responding officer and the responsibilities of the lead investigator upon arriving at a crime scene. They also learn search patterns and the importance of documenting a crime scene. This work is continued when they enter a "real" crime scene and need to put to practice what they have been learning.

Enduring Understandings

Students will gain the understanding of the importance to secure a crime scene, and why it is important to document everything through notes, pictures, and sketches.

Essential Questions

What are the primary responsibilities of the first responder?

What are the primary responsibilities of the lead investigator?

How are crime scenes investigated?

Why are these methods important?

What role does Forensic Science play in law enforcement? Why is it necessary?

The number of crime labs and forensic personnel nationally and internationally has tripled since the 1960's.

Explain three reasons as to why you think this has occurred?

Explain Locard's Exchange Principle and why it is so fundamentally important to Forensic Science. **Give an example.**

Explain two major tasks of the Forensic Scientist (as given in class). Give three examples not given in class.

Explain three differences between television forensic scientists and real forensic scientists.

What is the advantage of having an evidence-collection unit process a crime scene rather than a patrol officer or detective? Give at least two reasons.

New Jersey Student Learning Standards (No CCS)

9-12.HS-ETS1-1.1.1	Analyze complex real-world problems by specifying criteria and constraints for successful solutions.
9-12.HS-ETS1-3.6.1	Evaluate a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations.

Amistad Integration

The Amistad Bill (A1301), which became law in 2002, calls on New Jersey schools to incorporate African-American history into their **social studies** curriculum.

This course does not fall in this category.

Holocaust/Genocide Education

a. Every board of education shall include instruction on the Holocaust and genocides **in an appropriate place in the curriculum** of all elementary and secondary school pupils.

This lesson does not fall in this category

Interdisciplinary Connections

VPA.1.1.12.C.CS2	Characters have physical, emotional, and social dimensions that can be communicated through the application of acting techniques.
VPA.1.3.12.C.CS2	Presentation of believable, multidimensional characters in scripted and improvised performances requires application of specific physical choices, sustained vocal technique, and clearly motivated actions.
CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
TECH.8.1.12.C.CS4	Contribute to project teams to produce original works or solve problems.

Technology Standards

TECH.8.1.12.B.CS2	Create original works as a means of personal or group expression.
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21st Century Themes/Careers

CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
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Financial Literacy Integration

1. The State Board of Education shall require that a school district incorporate in each of the **grades ¹[kindergarten] six¹ through eight** financial literacy instruction to pupils enrolled in those grades. The purpose of the instruction shall be to provide ¹[elementary and]¹middle school students with the basic financial literacy necessary for sound financial decision-making.

This course dose not fall in this range.

Instructional Strategies & Learning Activities

In this unit, students learn the primary responsibilities of the first responding officer and the responsibilities of the lead investigator upon arriving at a crime scene. They also learn search patterns and the importance of documenting a crime scene. This work is continued when they enter a "real" crime scene and need to put to practice what they have been learning.

Would You Make a Good Witness????

Based on the clip you saw from the movie *Clue*, to the best of your knowledge, answer the following:

1. What color was the couch?
2. What weapon was held by the person who turned on the light?
3. What color was Miss Scarlet's dress? (she's the one sitting on the desk)
4. When the light was turned on, was the body face up or down?
5. When the light was turned on, what weapon was on the floor next to the body?
6. Was there a fire in the fireplace?
7. How many people in the scene were wearing hats?
8. How many men were in the room?

9. How many people were wearing glasses?

10. Match each weapon with the sex (M or F) of the individual who received it:

Wrench

Knife

Rope

Lead Pipe

Candlestick

Revolver

An Exercise in Physical Evidence and Deductive Reasoning:

The Deadly Picnic

Objective

You will use deductive reasoning to decide who committed a murder.

Background Information

Centerville police discovered the body of a 36-year-old white male (later identified as Gaven Brooks) in an open field of daisies about five miles outside of town. Mr. Brooks's body was discovered at 10:02 pm Friday night, October 11. He was found lying face up on a yellow, queen-size sheet. According to autopsy reports, one fatal gunshot to the back of the head ended Mr. Brooks's life. Scientists estimate that death occurred at about 7:45 pm. As investigators scanned the crime scene, they made the following notes:

- Paper plates filled with partially eaten fried chicken, potato salad, and chocolate cake were located near Mr. Brooks' body.
- An open bottle of red wine and two partially-filled glasses of wine were found next to the yellow sheet.
- One of the wine glasses had a smudge of red lipstick on the rim.

- A recently smoked cigarette butt was found near the sheet.
- Footprints from the road to the field were those of a male, size 10, and a female, size 5. The only footprints from the field back to the road were those of a female, size 5.
- Car tracks of the same wheel base and tread pattern as Mr. Brooks' automobile were found at the road. The car was not found at the scene.
- Later that evening Mr. Brooks' car was found abandoned in an empty parking lot in downtown Centerville.

Investigators believe that a female friend of Mr. Brooks was responsible for his demise. After questioning family and friends, it was discovered that the deceased had frequent *social outings* with six women who live in or near Centerville. The women's names are Rita, Lauren, Gail, Janice, Elaine, and Peggy.

Special notes gathered by police investigation:

- Janice works full time as a cosmetologist.
- Elaine and Gail are school teachers.
- Peggy and Elaine live together in a two-bedroom apartment in downtown Centerville.
- Gail lives in a nearby town called Jordan.
- Rita lives in a country house about three miles to the west of Centerville.
- Elaine and Janice are very petite women-they wear size 4 blue jeans.
- Peggy and Gail are smokers.
- Janice works part time as an aerobics instructor at a health club in Centerville. She teaches a 7:30 pm step aerobics class each Friday night and has not missed a class in two years.
- Peggy is deathly allergic to grapes.
- Gail attends the aerobics class that Janice teaches. She has not missed a Friday night class in nine months.
- Lauren works at a chemical supply house.
- Rita's father owns a rifle range.
- Lauren is allergic to all species of flowering plants.
- Rita is a florist.
- Rita doesn't wear makeup.

- Janice and Elaine have never met.

- Lauren played center for a semi-professional basketball team five years ago. She has red hair and is 6-feet, 1-inch tall.

You may assume the perpetrator did not do anything contrary to her own personality or habits to commit this murder. In other words, she made no attempt to disguise herself or "frame" someone else.

After considering all of the collected information, can you piece together the events that led to the death of Mr. Brooks???

Differentiated Instruction

- Curriculum Map
- Inquiry/Problem-Based Learning
- Learning preferences integration (visual, auditory, kinesthetic)
- Tiered Learning Targets
- Learning through play
- Relationship-Building & Team-Building
- Self-Directed Learning
- Debate
- Student Data Inventories
- Mastery Learning (feedback toward goal)
- Goal-Setting & Learning Contracts
- Grouping
- Rubrics
- Flipped Classroom
- Mentoring
- Assessment Design & Backwards Planning

Formative Assessments

Open ended questions asked during the lesson to gauge student understanding and address any misconceptions.

Summative Assessment

This work is continued when they enter a "real" crime scene and need to put to practice what they have been learning by systematically conducting their investigation and documenting the crime scene. A final report is generated with photographs, a photo log, notes, and sketches.

Benchmark Assessments

There are no gradelevel standards for this class.

Alternate Assessments

This work is continued when they enter a "real" crime scene and need to put to practice what they have been learning by systematically conducting their investigation and documenting the crime scene. A final report is generated with photographs, a photo log, notes, and sketches. This is an alternative to the traditional summative test.

Resources & Technology

Powerpoint and SMART Board presentations are used to introduce new material. We also use props and fake blood to set up the crime scene for investigation.

BOE Approved Texts

Saferstein, Richard, 1941-. **Criminalistics : An Introduction to Forensic Science**. Upper Saddle River, NJ :Prentice Hall, 1998.

Closure

This work is continued when they enter a "real" crime scene and need to put to practice what they have been learning by systematically conducting their investigation and documenting the crime scene. A final report is generated with photographs, a photo log, notes, and sketches. This is an alternative to the traditional summative test.

ELL

- Teacher Modeling
- Group work
- Simplified Written and Verbal Instructions
- Google Translate

Special Education

- Specify and list exactly what the student will need to learn to pass.
- Evaluate the classroom structure against the student's needs (flexible structure, firm limits, etc.).
- Keep workspaces clear of unrelated materials.
- Reduce visual distractions in the classroom (mobiles, etc.).
- Provide a computer for written work.
- Seat the student close to the teacher or a positive role model.
- Provide an unobstructed view of the chalkboard, teacher, movie screen, etc.
- Keep extra supplies of classroom materials (pencils, books) on hand.
- Maintain adequate space between desks.
- Give directions in small steps and in as few words as possible.
- Number and sequence the steps in a task.
- Have student repeat the directions for a task.
- Provide visual aids.
- Go over directions orally.
- Allow the student to complete an independent project as an alternative test.
- Grade spelling separately from content.
- Show a model of the end product of directions (e.g., a completed math problem or finished quiz).
- Stand near the student when giving directions or presenting a lesson.

504

- preferential seating
- extended time on tests and assignments
- modified textbooks or audio-video materials
- behavior management support
- excused lateness, absence, or missed classwork

At Risk

- Have student restate information
- Provision of notes or outlines
- Concrete examples
- Assistance in maintaining uncluttered space
- No penalty for spelling errors or sloppy handwriting
- Follow a routine/schedule
- Teach time management skills
- Verbal and visual cues regarding directions and staying on task
- Visual daily schedule
- Immediate feedback
- Work-in-progress check
- Pace long-term projects
- Cue/model expected behavior
- Use de-escalating strategies
- Use peer supports and mentoring
- Chart progress and maintain data

Gifted and Talented

Focus on effort and practice

Offer the Most Difficult First

Offer choice

Speak to Student Interests

Allow G/T students to work together

Encourage risk taking