

<b>Grade &amp; Course:</b> Forensic Science	<b>Topic:</b> Unit 2	<b>Duration:</b>
<b>Teachers:</b> Forensic PLC Teachers	<b>Crime Scene Investigation &amp; Collection</b>	<b>6 Weeks</b>

**Georgia Standards and Content:**

SFS2. Obtain, evaluate, and communicate information on various scientific techniques to analyze physical, trace, and digital evidence.

a. Plan and carry out an investigation to determine the value of physical and trace evidence.

SFS1. Obtain, evaluate, and communicate information to properly conduct a forensic investigation of a crime scene.

b. Plan and carry out investigations using the scientific protocols for analyzing a crime scene (e.g., search, isolate, collect, and record).

c. Construct an argument from evidence explaining the relevance of possible evidence at the site of an investigation.

d. Develop models to analyze and communicate information obtained from the crime scene. (Clarification statement: Properly document and sketch a crime scene.)

**Narrative / Background Information**

**Prior Student Knowledge: (REFLECTION – PRIOR TO TEACHING THE UNIT)**

Students have basic knowledge of what Forensic Science is and the history of Forensic Science. Students are also familiar with the roles of a forensic investigator and a forensic scientist as well as the difference between observation and perception. Students are aware that human minds process and filter information which is why forensic investigators and scientists must document, record, and collect as much useful evidence as possible to remove the unintended filtering and bias of the human mind from the investigation.

**Year-Long Anchoring Phenomena: (LEARNING PROCESS)**

An unidentified body was found in the back seat of a wrecked vehicle where the driver had fled the scene and the passenger was injured.

**Unit Phenomena (LEARNING PROCESS)**

Officers in the JonBenet Ramsey case made mistakes that may have resulted in the contamination or destruction of evidence.

**Inquiry Statement:**

Inadequate evidence collection can lead to false imprisonment.

**Global Context:**

Scientific and Technical Innovation

**Science & Engineering Practices:**

- Plan and Carry Out Investigations
- Constructing Arguments From Evidence
- Developing Models to analyze and Communicate Information

**Disciplinary Core Ideas: (KNOWLEDGE & SKILLS)**

- SFS1. B, C, D
- SFS2. A
- Locard’s Principle of Exchange
  - Types of Evidence
  - Collecting & Analyzing Evidence

**Crosscutting Concepts: (KNOWLEDGE & SKILLS)**

- Patterns

**Key and Related Concepts:**

- Evidence
- Patterns

**Possible Preconceptions/Misconceptions: (REFLECTION – PRIOR TO TEACHING THE UNIT)**

-That circumstantial evidence is not trustworthy

**Key Vocabulary: (KNOWLEDGE & SKILLS)**

chain of custody  
circumstantial evidence

class evidence  
 crime-scene investigation  
 crime-scene reconstruction  
 direct evidence  
 first responder  
 individual evidence  
 paper bindle  
 primary crime scene  
 secondary crime scene  
 trace evidence  
 Locard's Principle of Exchange

**Inquiry Questions:**

**Factual**

What are the different types of evidence?  
 What is Locard's principle of exchange?  
 What is the proper sequence of investigating a crime scene?

**Conceptual**

How do we secure the scene and separate witnesses?  
 How do we scan and see the scene?  
 How do we sketch the scene?  
 How do we search for evidence?  
 How do we secure and collect evidence?

**Debatable**

When do police have the authority to search a scene?  
 When is collected evidence not useful?

**Summative Assessment**

**Unit Objectives:**

Learning Activities and Experiences	Inquiry & Obtain: (LEARNING PROCESS)	Evaluate: (LEARNING PROCESS)	Communicate: (LEARNING PROCESS)
<p><b>Week 1: (2 days)</b></p>	<p>Officers in the JonBenet Ramsey case made mistakes that may have resulted in the contamination or destruction of evidence. (<b>discussion post</b>)</p> <p>Locard's Principle of Exchange &amp; Types of Evidence Notes</p> <ul style="list-style-type: none"> <li>○ Direct</li> <li>○ Circumstantial               <ul style="list-style-type: none"> <li>● Physical</li> <li>● Biological                   <ul style="list-style-type: none"> <li>● Class</li> </ul> </li> </ul> </li> </ul>	<p>Seven S's of Crime Scene Investigation (with practice)</p> <ul style="list-style-type: none"> <li>-<b>Securing</b> the scene</li> <li>-<b>Separating</b> witnesses</li> </ul> <p><b>Lab- Securing the Scene and Separating Witnesses with Interview Techniques</b></p>	

	<ul style="list-style-type: none"> <li>Individual</li> </ul> <p><b>Lab - Identifying Types of Evidence</b></p>		
<b>Week 2: (3 days)</b>	<p>Seven S's of Crime Scene Investigation (with practice)</p> <p>-<b>Scanning</b> the scene -<b>Seeing</b> the scene</p> <p><b>Lab- Crime Scene Photography</b></p>	<p>Seven S's of Crime Scene Investigation (with practice)</p> <p>-<b>Sketching</b> the scene</p> <p><b>Lab- Sketch a Crime Scene</b></p>	<p>Seven S's of Crime Scene Investigation (with practice)</p> <p>-<b>Searching</b> for evidence -<b>Securing and collecting</b> evidence</p> <p><b>Lab Day 1- Searching a Crime Scene and Securing and Collecting Evidence Using Proper Techniques</b></p>
<b>Week 3: (2 days)</b>	<p>Seven S's of Crime Scene Investigation (with practice)</p> <p><b>Lab Day 2</b></p>	<p>Case studies review (pg 41 text) &amp; discussion.</p> <p>Unit 2 closer quiz.</p>	
<b>Week 4: (3 days)</b>	<p>Locard's Principle of Transfer Activity (pg 44-47)</p>	<p>Crime Scene Investigation Activity(pg 48-55)</p> <p>-sketch the crime scene -secure and collect &amp; package evidence lab</p>	<p>Finish Crime Scene Activity (Crime Scene activity could serve as unit 2 assessment)</p>

**Resources (hyperlink to model lessons and/or resources):**

Bertino & Bertino Forensic Science Text- 3rd Edition

**Reflection: Considering the planning, process and impact of the inquiry**

<b>Prior to teaching the unit</b>	<b>During teaching</b>	<b>After teaching the unit</b>
<p>-How can we help students understand that circumstantial evidence can be beneficial and even be used to convict?</p> <p>-How to help students determine what evidence is useful to collect (rather than too much)?</p>		