

# 01-Introduction to Forensic Science and the Crime Scene

Content Area: **Science**  
Course(s):  
Time Period: **Full Year**  
Length: **3 weeks**  
Status: **Published**

## General Overview, Course Description or Course Philosophy

In this course, you will apply the science you've learned throughout your high school years in a variety of ways to analyze and solve cases. Various aspects of chemistry, physics, biology and physiology, to name a few, will be utilized with this course. Many of the activities will be lab-base, as this course is an applied science course. This course should prove to be intriguing, through provoking and have a "gross-factor" that should keep you entertained!

## OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

Students will understand that:

- The role of the forensic scientist in the criminal justice system and examine the various branches of forensic science.
- When a crime scene team approaches a potential crime scene, there is a certain protocol that they must follow.
- Examine who makes up the crime scene team and what their individual roles are.
- How evidence is collected and marked for later use.

## CONTENT AREA STANDARDS

G-MG.A.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).

LA.RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
LA.RST.11-12.8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
LA.RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
SCI.9-12.HS-ETS1-1	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

**RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)**

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12.9.3.ST.2	Use technology to acquire, manipulate, analyze and report data.
12.9.3.ST.3	Describe and follow safety, health and environmental standards related to science, technology, engineering and mathematics (STEM) workplaces.
12.9.3.ST-ET.4	Apply the elements of the design process.

**STUDENT LEARNING TARGETS**

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Refer to the 'Declarative Knowledge' and 'Procedural Knowledge' sections.

**Declarative Knowledge**

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Students will understand:

- the historical significance of various scientists in the formation of forensic science.
- what does and what does not belong in the realm of forensic science.
- the different branches of forensic science.
- the possible careers in forensic science.
- the difference between class and individual evidence and describe the importance of both types.
- difference between the medical cause manner and mechanism of death.
- the ten steps to properly conducting an investigation and explain each step.
- the proper chain of command at a crime scene.
- how evidence is collected and marked.
- the difference between a primary and any secondary crime scene.

**Procedural Knowledge**

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Students will be able to:

- use deductive and inductive reasoning to solve crime scenes.
- discuss and create various types of sketches (2-D, 3-D, rough, smooth)

**EVIDENCE OF LEARNING**

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Refer to the 'Formative Assessments' and 'Summative Assessments' sections.

## **Formative Assessments**

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Observation

do now

homework

## **Summative Assessments**

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- Benchmarks – departmental benchmark given at the end of MP1, MP2, and MP3 based on lab practices
- Alternative Assessments
  - Lab inquiries and investigations
  - Lab Practicals
  - Exploratory activities based on phenomenon
  - Gallery walks of student work
  - Creative Extension Projects
  - Build a model of a proposed solution
  - Let students design their own flashcards to test each other
  - Keynote presentations made by students on a topic
  - Portfolio

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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American Academy of Forensic Science ([aafs.org/students/choosing-a-career/](http://aafs.org/students/choosing-a-career/))-document below  
American Forensic Association ([americanforensics.org/what.html](http://americanforensics.org/what.html))-document below

## **INTERDISCIPLINARY CONNECTIONS**

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Applicable career options are discussed as they arise throughout the course;

Scientific writing

Current events

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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See link to Accommodations & Modifications document in course folder.