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.

SCI.9-12.HS-ETS1-2	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

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

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

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

Declarative Knowledge

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

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

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

Formative Assessments

Observation

do now

homework

Summative Assessments

- 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)

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

INTERDISCIPLINARY CONNECTIONS

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

Scientific writing

Current events

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.