

# **Marietta City Schools**





Grade & Course: Forensic Science	Topic: Unit 1: History & Law	Duration: 2 Weeks
Teachers: Forensic PLC Teachers		

#### **Georgia Standards and Content:**

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

a. Construct an explanation of how scientific forensic techniques used in collecting and submitting evidence for admissibility in court have evolved over time.

(Clarification statement: Emphasis is on Locard's Exchange Principle, Frye standard, Daubert ruling)

## Narrative / Background Information

#### Prior Student Knowledge: (REFLECTION - PRIOR TO TEACHING THE UNIT)

Students should have completed a course in Biology and have basic Chemistry knowledge.

#### 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)**

Julius Earl Ruffin spent 21 years in jail for a crime he did not commit.

#### **Inquiry Statement:**

Human observation sometimes results in inaccurate perception.

#### **Global Context:**

Scientific and Technical Innovation

Science & Engineering Practices:  • Constructing Explanations	Disciplinary Core Ideas: (KNOWLEDGE & SKILLS)  • Scientific Observation	Crosscutting Concepts: (KNOWLEDGE & SKILLS)
	History of Forensics	<ul> <li>Patterns</li> <li>Key and Related Concepts:</li> <li>Evidence</li> <li>Patterns</li> </ul>

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

Students may have the misconception that perception is reality. Our brains can piece together events that they "remember" witnessing that they may believe is true but not be what actually happened.

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

- -Analytical skill
- -Deductive reasoning
- -Eyewitness
- -Fact
- -Forensic science
- -hypothesis
- -logical
- -observation
- -opinion
- -perception

## **Inquiry Questions:**

#### **Factual**

- What do forensic scientists do?
- -What is deductive reasoning?
- -What events happened in the development of forensic science?

## Conceptual

- How is observation compared to perception?
- -How can we improve our observation skills?

#### **Debatable**

- Is eyewitness testimony reliable?
- -Is forensic science a separate discipline?

Summative assessment: Case study portfolio

## **Unit Objectives:**

Learning Activities and Experiences	Inquiry & Obtain: (LEARNING PROCESS)	Evaluate: (LEARNING PROCESS)	Communicate: (LEARNING PROCESS)
Week 1:	Phenomenon: Julius Earl Ruffin spent 21 years in jail for a crime he did not commit: How Accurate is Eyewitness Memory  Day 1 engage activity: Learning to See Activity	History Notes: History of Forensic Science Instructor Lead Case Studies	Class discussion on History of Forensic Science and Observation  Unit 1 Notes
Week 2:	Student chosen Case study portfolio research	Quiz on history and observation.	Share case studies in gallery walk- Post Discussion in Schoology.

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

- Textbook Forensic Science Bertino & Bertino, 3rd Edition
- Forensic Science Schoology Course
- Commercial & Questions
- Janes' Photo & Questions

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

Prior to teaching the unit	During teaching	After teaching the unit
A few more parameters will be placed on the portfolio submissions due to the extreme graphic nature of some of the cases. Teachers will give a list of cases for students to choose from.		
Will be modifying the portfolio project to be a team project rather than individual project to increase engagement and decrease anxiety over presenting in front of the class at the beginning of the semester. Adding alternate options to present (e.g. podcast or video).		
Change rubric to give credit for rough draft. Overall project will include a score for the rough draft and group presentation.		
A template for project presentations will be provided.		