

Unit 7: Historical Cases

Content Area: **Science**
Course(s):
Time Period: **Generic Time Period**
Length: **4-6 weeks**
Status: **Published**

Unit Introduction

This topic will cover historical cases that are considered to be landmark cases that helped shape the current structure of forensic science practices.

Standards

SCI.9-12.HS-ESS1-1.2.1	Develop a model based on evidence to illustrate the relationships between systems or between components of a system.
SCI.9-12.HS-ESS1-1.3.1	students understand the significance of a phenomenon is dependent on the scale, proportion, and quantity at which it occurs. They recognize patterns observable at one scale may not be observable or exist at other scales, and some systems can only be studied indirectly as they are too small, too large, too fast, or too slow to observe directly. Students use orders of magnitude to understand how a model at one scale relates to a model at another scale. They use algebraic thinking to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth).
SCI.9-12.HS-ESS1-4.3.1	Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth).
SCI.9-12.HS-ESS1-2.5.1	Energy cannot be created or destroyed— only moved between one place and another place, between objects and/or fields, or between systems.
SCI.9-12.HS-LS4-3.1.1	students observe patterns in systems at different scales and cite patterns as empirical evidence for causality in supporting their explanations of phenomena. They recognize classifications or explanations used at one scale may not be useful or need revision using a different scale; thus requiring improved investigations and experiments. They use mathematical representations to identify certain patterns and analyze patterns of performance in order to reengineer and improve a designed system.
SCI.9-12.HS-LS1-1.6.1	students investigate systems by examining the properties of different materials, the structures of different components, and their interconnections to reveal the system's function and/or solve a problem. They infer the functions and properties of natural and designed objects and systems from their overall structure, the way their components are shaped and used, and the molecular substructures of their various materials.
SCI.9-12.HS-PS2-1.2.1	students understand that empirical evidence is required to differentiate between cause and correlation and to make claims about specific causes and effects. They suggest cause and effect relationships to explain and predict behaviors in complex natural and designed systems. They also propose causal relationships by examining what is known about smaller scale mechanisms within the system. They recognize changes in systems may have various causes that may not have equal effects.
SCI.9-12.HS-PS2-2.4.1	When investigating or describing a system, the boundaries and initial conditions of the system need to be defined.
SCI.9-12.HS-PS1-6.7.1	students understand much of science deals with constructing explanations of how things

change and how they remain stable. They quantify and model changes in systems over very short or very long periods of time. They see some changes are irreversible, and negative feedback can stabilize a system, while positive feedback can destabilize it. They recognize systems can be designed for greater or lesser stability.

Essential Questions

What is the role of the forensic pathologist in an investigation?

How has forensic science played a significant role in prominent cases throughout history?

Content / Skills

Content:

- The role of the forensic pathologist
- The importance of scene investigation
- The importance of the autopsy
- How to determine the cause of death, manner of death and time of death

Skills:

- Analyze the chemical and physical changes that occur after death.
- Identify and examine factors that determine the cause of death.
- Describe the role of the forensic pathologist.
- Compare and contrast historical forensic science cases and evaluate their contributions to modern forensic science.