

Unit 3: Analyzing Evidence

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

Unit Introduction

Using Blood typing and Spatter, Handwriting and Document Analysis, Glass, Water and Soil Analysis, this topic will cover ways in which Evidence can be analyzed.

Standards

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-LS4-1.1.1	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-LS2-8.2.1	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-LS1-1.6	Constructing Explanations and Designing Solutions
SCI.9-12.HS-LS2-6.7.1	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

1. How is the correct analyzation of evidence pertinent to identification in Forensic Science ?
2. How can analyzing evidence lead to a method behind a crime?

Content / Skills

Content

- Compare different blood types and spatter types
- Analyze types of handwriting
- Describe texture of fibers under microscope
- Evaluate fracture patterns of Glass

Skills

- Identify the type of blood using clumping method
- Compare handwriting to different documents
- Analyze fibers under microscopes
- Classify different types of glass and fracture patterns
- Visual examinations and classification of soil types