

Forensics

I. Enduring Understanding:

Bodies change and decompose in predictable ways after death. (1,2,3,4,5,6,8)

Essential Questions:

How do bodies change after death?

What is the purpose of an autopsy?

Student Outcomes: Students will:

- A. Understand that there are stages of body decomposition.
 - 1. Outline several recognizable stages of decomposition.
 - 2. Distinguish between livor mortis, algor mortis and rigor mortis.
 - 3. Interpret effects of temperature, climate and environment on decomposition of a body.
 - 4. Describe the impact various insects and their developmental stages have on decomposition.

- B. Understand that autopsies reveal information.
 - 1. Realize that autopsies involve several scientific disciplines and interpretations.
 - 2. Know when, why and how an autopsy is performed.
 - 3. Identify the differences between common causes of death.
 - 4. Predict the effects of alcohol, drugs and poisons on body organs.

II. Enduring Understanding:

Evidence must be identified, collected and analyzed in a systematic fashion to preserve its integrity. (1,2,3,4,5,8,9)

Essential Questions:

How are crime scenes processed?

What is and how is trace evidence used in forensics?

Student Outcomes: Students will:

- A. Understand the development of forensics had contributed to how evidence and crime scenes are processed today.
 - 1. Describe and interpret priorities and necessities in processing crime scenes.
 - 2. Describe the limitations to what evidence can divulge about a crime or situation.
 - 3. Associate hair structure and how structure can be used as evidence.
 - 4. Recall how different fibers are tested and evaluated.
 - 5. Realize the value and limit of bullets, bullet casings and gun evidence.

Forensics

III. Enduring Understanding:

There are biological evidences common to all organisms that are used for identification.
(1,2,3,4,5,7,8,9)

Essential Questions:

What biological evidences are used for identification?

How is biotechnology used in forensics?

Student Outcomes: Students will:

- A. Understand commonalities of forensic evidence in all organisms.
 - 1. Distinguish between individual and class characteristics in specimens.
 - 2. Give examples of skin structure and function or dysfunction.
 - 3. Identify types of fingerprints and processing techniques.
 - 4. Differentiate between blood cells and their purposes
 - 5. *Recognize the inheritance patterns of blood types.*
 - 6. Determine the limitations of blood evidence.
 - 7. State evidence provided by bodily fluids other than blood.

- B. Understand that technology has enhanced forensic methodology.
 - 1. Summarize the purpose of various types of analysis for biological specimens.
 - 2. *Outline the development of our knowledge of DNA structure and function.*
 - 3. *Describe how the structure of DNA enables us to use it to identify an individual.*
 - 4. Differentiate between the different types of DNA testing