
FORENSIC SCIENCE

Career & Ethics Unit

Grades 9–12

A comprehensive unit exploring 15 forensic science careers, expert witness testimony, wrongful convictions and the Innocence Project, forensic ethics dilemmas, and the intersection of science and the law.

WHAT'S INCLUDED

- 8 Detailed Lesson Plans
- 15 Forensic Career Comparison Matrix
- 3 Innocence Project Case Studies
- 15 Ethics Dilemma Discussion Cards
- Expert Witness Mock Testimony Activity
- College & Career Pathway Guide
- Comprehensive Unit Assessment with Answer Keys

UM Printables

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Forensics Career Comparison Matrix (15 Roles)

Innocence Project Case Study Pack

- Case 1: Kirk Bloodsworth
- Case 2: Ronald Cotton
- Case 3: Damon Thibodeaux

Ethics Dilemma Discussion Cards (15 Scenarios)

Expert Witness Mock Testimony Activity

College & Career Pathway Guide

Unit Assessment & Answer Keys

UNIT OVERVIEW

Target Grade Level: 9–12

Duration: 8 Lessons (approximately 2–3 weeks)

Prerequisites: None (Suitable as an intro or capstone unit)

Unit Description

This premium unit provides a comprehensive exploration of the professional and ethical dimensions of forensic science. Students will investigate 15 distinct forensic careers, understand the critical role of expert witnesses in the justice system, analyze real-world case studies of wrongful convictions overturned by the Innocence Project, and debate complex ethical dilemmas faced by forensic practitioners. The unit culminates in a capstone activity that ties science and the law together, preparing students for informed citizenship or further study in forensic disciplines.

Standards Alignment

NGSS (Science & Engineering Practices):

- Obtaining, Evaluating, and Communicating Information
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence

Common Core ELA (Literacy in Science):

- RST.9-12.1: Cite specific textual evidence to support analysis of science texts.
- RST.9-12.7: Integrate and evaluate multiple sources of information.
- WHST.9-12.1: Write arguments focused on discipline-specific content.

CTE (Career & Technical Education):

- Career Readiness: Investigate careers and plan education pathways.
- Ethics & Legal Responsibilities: Analyze ethical and legal standards in STEM fields.

Essential Questions

1. How do various forensic science careers contribute to the criminal justice system?
2. What distinguishes an expert witness from a lay witness, and why is this distinction critical?
3. How do wrongful convictions occur, and what role does forensic science play in exonerating the innocent?
4. What ethical dilemmas do forensic scientists face, and how should they be resolved?
5. How do science and the law intersect, and what happens when they conflict?

Objective

Students will identify 15 distinct forensic science careers and describe their primary roles within the criminal justice system.

Materials

- Forensics Career Comparison Matrix (15 Roles)
- Career Matching Worksheet (Teacher-created: 15 job descriptions to match with titles)
- Sticky notes and chart paper

Lesson Progression

- 1. Warm-Up (5 min):** Display the prompt: "When you hear 'forensic scientist,' what job comes to mind first? What does that person do?" Students write responses on sticky notes and post them on the board.
- 2. Direct Instruction (15 min):** Introduce the Forensics Career Comparison Matrix. Provide a high-level overview of all 15 careers, grouping them by field (Lab-Based, Field-Based, Medical, Digital/Legal). Emphasize that "forensic scientist" is an umbrella term, not a single job.
- 3. Guided Practice (15 min):** Career Matching Activity. Students use the matrix to match detailed job descriptions with the correct career title. Review answers as a class, clarifying misconceptions (e.g., CSI vs. Forensic Scientist).
- 4. Independent Practice (10 min):** Students select the three careers that interest them most and write a brief explanation of why, citing specific duties from the matrix.
- 5. Closure (5 min):** Exit Ticket — Name three distinct forensic careers and state one unique responsibility of each.

Objective

Students will compare and contrast the education, salary, and daily tasks of forensic specialists to evaluate career fit.

Materials

- Forensics Career Comparison Matrix
- Jigsaw reading packets (detailed info on 5 career clusters)
- Graphic Organizer (Comparison T-Chart)

Lesson Progression

- 1. Warm-Up (5 min):** Review the 15 careers from Lesson 1. Ask: "Which career surprised you the most? Which requires the most education?"
- 2. Jigsaw Activity (25 min):** Divide the class into 5 "expert" groups, each assigned a career cluster. Groups use the matrix and jigsaw packets to become experts on their cluster's education, training, and daily tasks. Then, regroup so each new group has one expert from each cluster. Experts share their knowledge.
- 3. Analysis (10 min):** Students complete a Comparison T-Chart selecting two careers of interest, comparing education requirements, median salary, work environment, and key skills.
- 4. Closure (5 min):** Share out: "How do the educational requirements differ between a Crime Scene Investigator and a Forensic Pathologist?"

Objective

Students will understand the role of the expert witness, distinguish between lay and expert testimony, and explain the Daubert and Frye standards for admissibility.

Materials

- Expert Witness Information Sheet (provided in mock testimony activity section)
- Video clip of expert witness testimony (e.g., O.J. Simpson trial or similar accessible clip)
- Venn Diagram handout (Expert vs. Lay Witness)

Vocabulary

Expert Witness: A person permitted to testify at trial because of special knowledge or proficiency in a particular field.

Lay Witness: A person giving testimony who is not an expert; can only testify to what they personally saw or heard.

Daubert Standard: A standard for admitting expert testimony which requires that the methodology be scientifically valid and properly applied to the facts.

Frye Standard: A standard requiring that the scientific method be generally accepted by the relevant scientific community.

Lesson Progression

- 1. Warm-Up (5 min):** “If a scientist writes a report, why must they also go to court to talk about it? Why can’t the report just speak for itself?”
- 2. Direct Instruction (15 min):** Present the differences between lay and expert witnesses. Explain the Daubert and Frye standards. Discuss voir dire (the process of qualifying an expert in court).
- 3. Guided Practice (15 min):** Watch a short video clip of expert testimony. Students identify: What is the expert’s field? What opinion are they offering? How does the attorney establish their credibility?
- 4. Independent Practice (10 min):** Complete a Venn Diagram comparing and contrasting Expert and Lay Witnesses.
- 5. Closure (5 min):** “In your own words, what is the difference between the Daubert and Frye standards?”

UNIT ASSESSMENT

Name: _____ Date: _____ Score: _____ / 50

Section 1: Multiple Choice (2 pts each)

1. Which of the following forensic careers requires a medical degree (M.D. or D.O.)?

- A) Forensic Toxicologist
- B) Forensic Pathologist
- C) Forensic Anthropologist
- D) Crime Scene Investigator

2. What is the primary difference between a lay witness and an expert witness?

- A) An expert witness was at the crime scene; a lay witness was not.
- B) A lay witness can only testify to what they personally perceived; an expert can offer specialized opinions.
- C) An expert witness is paid; a lay witness is not.
- D) A lay witness testifies for the defense; an expert testifies for the prosecution.

3. The Daubert Standard requires that expert testimony be:

- A) Based on methods generally accepted by the scientific community.
- B) Based on scientifically valid methodology that has been properly applied.
- C) Approved by a grand jury before trial.
- D) Solely based on the expert's years of experience.

4. Which of the following has contributed to the highest percentage of wrongful convictions later overturned by DNA evidence?

- A) Invalid or improper forensic science
- B) Eyewitness misidentification
- C) False confessions
- D) Government misconduct

5. The fraudulent practice of reporting forensic test results without actually performing the tests is called:

- A) Drylabbing
- B) Confirmation bias
- C) Context bias
- D) Voir dire

Section 2: True/False (2 pts each)

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