

Unit 5: Fingerprinting New

Content Area: **Basic Skills**
Course(s): **Forensics**
Time Period: **October**
Length: **1**
Status: **Published**

Unit Overview:

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Enduring Understandings:

- The method used to develop latent fingerprints depends on several factors including location of the print, ability to remove object from the scene, and the type of fingerprint residue tested for.
- There are several methods to develop latent fingerprints including both physical, chemical, and illumination methods.
- There are three basic fingerprint patterns: loops, whorls, and arches - all with distinct individual characteristics

Essential Questions:

- How are latent fingerprints developed?
- What are the basic patterns and characteristics of fingerprints?

Lesson Titles:

- AFIS
- Developing Latent Fingerprints
- Dusting for Prints
- Fingerprints
- History of Fingerprints

Career Readiness, Life Literacies & Key Skills

WRK.K-12.P.1	Act as a responsible and contributing community members and employee.
WRK.K-12.P.4	Demonstrate creativity and innovation.
WRK.K-12.P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
WRK.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate

effectively.

WRK.K-12.P.9

Work productively in teams while using cultural/global competence.

Inter-Disciplinary Connections:

MA.K-12.1	Make sense of problems and persevere in solving them.
MA.K-12.2	Reason abstractly and quantitatively.
LA.K-12.NJSLSA.R1	Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
LA.K-12.NJSLSA.R2	Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
MA.K-12.3	Construct viable arguments and critique the reasoning of others.
LA.RH.11-12.3	Evaluate various perspectives for actions or events; determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
LA.K-12.NJSLSA.R4	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
MA.K-12.6	Attend to precision.
LA.RH.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, qualitatively, as well as in words) in order to address a question or solve a problem.
LA.K-12.NJSLSA.R8	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
LA.RST.11-12.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
LA.RST.11-12.8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
LA.RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
LA.RST.11-12.10	By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text complexity band independently and proficiently.
LA.WHST.11-12.1	Write arguments focused on discipline-specific content.
LA.WHST.11-12.1.A	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
LA.WHST.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
LA.K-12.NJSLSA.L1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
LA.K-12.NJSLSA.L2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
LA.WHST.11-12.9	Draw evidence from informational texts to support analysis, reflection, and research.
LA.K-12.NJSLSA.L6	Acquire and use accurately a range of general academic and domain-specific words and

phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Instructional Strategies, Learning Activities, and Levels of Blooms/DOK:

- Notes/Class Discussion on AFIS
- Notes/Class Discussion on Ways to Develop Latent Fingerprints
- Class Data Table of Fingerprints
- Developing Latent Fingerprints - Dusting Methods
- Forensic Files with Worksheet
- Galton Characteristics of Fingerprints - Fingerprint Cards and Balloons
- Level of Blooms - Applying
- Levels of Blooms - Analyzing
- Levels of Blooms - Evaluating
- Levels of Blooms - Understanding
- Notes/Class Discussion on History of Fingerprints
- Notes/Class Discussion on How Prints are Made
- Notes/Class Discussion on Types of Fingerprints
- Notes/Class Discussion on Types of Fingerprints
- Serial Killer related to the Topic being Covered
- Taking Fingerprints - Cards and Balloons
- Tutoring During Delsea One/Academic Enrichment

Modifications

- Tutoring During Delsea One/Academic Enrichment

Alternative assessments:

Performance tasks

Project-based assignments

Problem-based assignments

Presentations

Reflective pieces

Concept maps

Case-based scenarios

Portfolios

Benchmark Assessments:

Skills-based assessment

Reading response

Writing prompt

Lab practical

Formative Assessment:

- Anticipatory Set
- Closure
- Warm-Up

Summative Assessment:

- Alternate Assessment
- Benchmark
- Lab on Fingerprints
- Marking Period Assessment
- Mock Crime Cases
- Unit Quiz on Fingerprints
- Unit Test on Fingerprints

Resources & Materials:

- CSI Episode
- Balloons
- Chemicals for Chemical Development of Latent Fingerprints
- FACES Software Program
- Fingerprinting Kits
- Forensic Files Episode DVD
- Objects to Dust for Fingerprints
- Sharpie Markers