

**Inquiry Investigations™**  
**Forensic Science MODULE - 1013062**  
**Grades: 7-10**

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**Arkansas Curriculum Frameworks**  
**Science**  
**Grade 7**

STRAND/CONTENT STANDARD	AR. 1.	Nature of Science: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology
STANDARD/STUDENT LEARNING EXPECTATION	NS. 1.7.1.	<p>Processes of Science: Interpret evidence based on observations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p><b>STANDARD/STUDENT LEARNING EXPECTATION</b></p>	<p><b>NS.1.7.2.</b></p>	<p>Processes of Science: Analyze components of experimental design used to produce empirical evidence: hypothesis, replication, sample size, appropriate use of control, use of standardized variables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic</li> </ul>

Bag

- Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile
- Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis
- Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis
- Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms
- Forensic Science: Unit 3 Case Activity 1: The Stain in Question
- Forensic Science: Unit 3 Case Activity 2: The Glowing Light
- Forensic Science: Unit 3 Case Activity 3: The False Positive
- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis
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- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
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- Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket
- Forensic Science: Unit 5 Case Activity 4: The Careless Forger
- Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel
- Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.7.3.	<p>Processes of Science: Interpret scientific data using mean, median, mode, and range using SI units</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.7.4.	<p>Processes of Science: Construct and interpret scientific data using histograms, circle graphs, scatter plots, double line graphs, line graphs by approximating line of best fit</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The</li> </ul>

		<p>Discarded Cigarette - RFLP Profile Analysis</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic</li> </ul>
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		<p>Analysis</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.1.7.5.</p>	<p>Processes of Science: Communicate results and conclusions from scientific inquiry</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> </ul>

- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis
- Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood
- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
- Forensic Science: Unit 4 Case Activity 1: The Artist's Brush
- Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment
- Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp
- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread
- Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection
- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
- Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective
- Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns
- Forensic Science: Unit 5 Case Activity 1: The Curious Line
- Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T
- Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket
- Forensic Science: Unit 5 Case Activity 4: The Careless Forger
- Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel
- Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks
- Forensic Science: Unit 6 Activity 1: Toxicological Analysis
- Forensic Science: Unit 6 Activity 2: Chromatographic Analysis
- Forensic Science: Unit 6 Activity 3: Fingerprint Analysis
- Forensic Science: Unit 6 Activity 4: Document Analysis
- Forensic Science: Unit 6 Activity 5: Blood Analysis
- Teacher Resource CD: Fingerprinting

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.1.7.6.</p>	<p>Processes of Science: Develop and implement strategies for long-term, accurate data collection</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making</li> </ul>

		<p>an Impression Cast</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.1.7.7.</p>	<p>Characteristics of Science: Distinguish between questions that can and cannot be answered by science</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> </ul>

- Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors
- Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage
- Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard
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- Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective
- Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket
- Forensic Science: Unit 5 Case Activity 4: The Careless Forger
- Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.7.9.	<p>Characteristics of Science: Compare and contrast hypotheses, laws, and theories</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
STRAND/CONTENT STANDARD	AR.2.	Life Science: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology
STANDARD/STUDENT LEARNING EXPECTATION	LS.2.7.1.	<p>Structure and Function: Illustrate the hierarchical relationships of cells, tissues, organs, and organ systems</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.2.7.4.	<p>Structure and Function: Analyze the structure and function of tissues, organs, and organ systems of a vertebrate and an angiosperm using various models or methods of dissection</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.2.7.6.	<p>Structure and Function: Identify human body systems: nervous, digestive, circulatory, respiratory, excretory, integumentary, skeletal/muscular, endocrine, reproductive</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.2.7.8.	<p>Structure and Function: Investigate functions of human body systems</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human</li> </ul>

		<p>Blood Group Analysis</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.3.</b>	<b>Life Science: Life Cycles, Reproduction, and Heredity: Students shall demonstrate and apply knowledge of life cycles, reproduction, and heredity using appropriate safety procedures, equipment, and technology</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>LS.3.7.8.</b>	<p>Heredity and Reproduction: Identify the number and source of chromosomes in human body cells</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.5.</b>	<b>Physical Science: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>PS.5.7.5.</b>	<p>Properties of Matter: Demonstrate techniques for forming and separating mixtures: mixing, magnetic attraction, evaporation, filtration, chromatography, settling</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>PS.5.7.6.</b>	<p>Properties of Matter: Classify substances as elements, compounds, mixtures</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>PS.5.7.7.</b>	<p>Properties of Matter: Distinguish among solvent, solute, and solution</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> </ul>

Grade 8

STRAND/CONTENT STANDARD	AR.1.	Nature of Science: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.1.	<p>Processes of Science: Justify conclusions based on appropriate and unbiased observations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood</li> </ul>

		<p>Group</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
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		<ul style="list-style-type: none"> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.1.8.2.</p>	<p>Processes of Science: Evaluate the merits of empirical evidence based on experimental design: hypothesis, replication, sample size, appropriate use of control, use of standardized independent and dependent variables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood</li> </ul>

		<p>Group</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
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		<ul style="list-style-type: none"> <li>Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.3.	<p>Processes of Science: Formulate a testable problem using experimental design</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.4.	<p>Processes of Science: Analyze a set of scientific data using mean, median, mode, and range using SI units</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.5.	<p>Processes of Science: Suggest solutions to real world problems by analyzing scientific data in data tables/charts, histograms, circle graphs, scatter plots, stem and leaf plots, line and double line, graphs by approximating line of best fit</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.6.	<p>Processes of Science: Formulate inferences based on scientific data</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.7.	<p>Processes of Science: Communicate results and conclusions from scientific inquiry following peer review</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic</li> </ul>

		<p>Bag</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> </ul>
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<p><b>STANDARD/STUDENT LEARNING EXPECTATION</b></p>	<p><b>NS.1.8.8.</b></p>	<p>Processes of Science: Develop and implement strategies for long-term, accurate data collection</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> </ul>

- Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills
- Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces
- Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper
- Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors
- Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile
- Forensic Science: Unit 3 Case Activity 1: The Stain in Question
- Forensic Science: Unit 3 Case Activity 2: The Glowing Light
- Forensic Science: Unit 3 Case Activity 3: The False Positive
- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis
- Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood
- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
- Forensic Science: Unit 4 Case Activity 1: The Artist's Brush
- Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment
- Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp
- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread
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- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
- Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective
- Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns
- Forensic Science: Unit 5 Case Activity 1: The Curious Line
- Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T
- Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket
- Forensic Science: Unit 5 Case Activity 4: The Careless Forger
- Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.1.8.9.</p>	<p>Characteristics of Science: Generate questions that can and cannot be answered by science</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.1.8.11.	<p>Characteristics of Science: Evaluate the merit of hypotheses, laws, and theories</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
STRAND/CONTENT STANDARD	AR.2.	Life Science: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living

		systems using appropriate safety procedures, equipment, and technology
STANDARD/STUDENT LEARNING EXPECTATION	LS.2.8.1.	Structure and Function: Illustrate the hierarchical relationships of cells, tissues, organs, organ systems, and organisms <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> </ul>
STRAND/CONTENT STANDARD	AR.3.	Life Science: Life Cycles, Reproduction, and Heredity: Students shall demonstrate and apply knowledge of life cycles, reproduction, and heredity using appropriate safety procedures, equipment, and technology
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.1.	Heredity and Reproduction: Identify and explain why inherited characteristics of living things depend on genes <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.5.	Heredity and Reproduction: Interpret simple genetic crosses using Punnett Squares <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.6.	Heredity and Reproduction: Predict patterns that emerge from simple genetic crosses <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.7.	Heredity and Reproduction: Conduct investigations demonstrating that the phenotype of a genetic trait is the result of genotype

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.10.	<p>Heredity and Reproduction: Distinguish between characteristics of plants and animals through selective breeding</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.11.	<p>Heredity and Reproduction: Investigate careers, scientists, and historical breakthroughs related to genetics</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> </ul>

		<ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	LS.3.8.13.	<p>Regulation and Behavior: Identify basic ideas related to biological evolution: diversity of species, variations within species, adaptations, natural selection, extinction of a species</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>
STRAND/CONTENT STANDARD	AR.7.	Physical Science: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology
STANDARD/STUDENT LEARNING EXPECTATION	PS.7.8.8.	<p>Energy: Differentiate among reflection, refraction, and absorption of various types of waves</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Learning About Paper</li> </ul>

Arkansas Curriculum Frameworks

Science

Grade 9

STRAND/CONTENT STANDARD	AR.1.AP.	Anatomy and Physiology: Organization of the Human Body: Students shall explore the organizational structures of the body from the molecular to the organism level.
STANDARD/STUDENT LEARNING EXPECTATION	OHB.1.AP.3	<p>Identify the major body systems</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>Teacher Resource CD: Fingerprinting</li> <li>Teacher Resource CD: The Case of the Telling Blood Group</li> </ul>

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.2.AP.</b>	<b>Anatomy and Physiology: Cellular Chemistry: Students shall understand the role of chemistry in body processes.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>CC.2.AP.3</b>	Distinguish between compounds and mixtures <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>CC.2.AP.10</b>	Describe the characteristics and importance of enzymes <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.3.AP.</b>	<b>Anatomy and Physiology: Anatomy and Physiology of the Cell: Students shall understand that cells are the basic, structural, and functional units of life.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>APC.3.AP.3</b>	Describe the structure and function of organelles and cell parts <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.4.AP.</b>	<b>Anatomy and Physiology: Tissues: Students shall understand the histology of the human body</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>T.4.AP.1</b>	Describe the structure, location, and function of each tissue category: epithelial, connective, nervous, muscle <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.5.AP.</b>	<b>Anatomy and Physiology: Body Systems: Students shall describe the anatomy and physiology of the integumentary system.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>BS.5.AP.1</b>	Identify the components of the integumentary system <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>BS.5.AP.2</b>	Discuss the physiological mechanisms of the skin <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>

STANDARD/STUDENT LEARNING EXPECTATION	BS.5.AP.3	<p>Identify the macroscopic and microscopic structure of the integumentary system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
STRAND/CONTENT STANDARD	AR.10.AP.	Anatomy and Physiology: Body Systems: Students shall describe the anatomy and physiology of the cardiovascular system.
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.1	<p>Identify the components of the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.2	<p>Discuss the physiological mechanisms of the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.3	<p>Identify the macroscopic, microscopic, and molecular structure of the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.4	<p>Describe disorders associated with the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.16.AP.</b>	<b>Anatomy and Physiology: Nature of Science: Students shall demonstrate an understanding that science is a way of knowing.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.16.AP.2</b>	<p>Compare and contrast hypotheses, theories, and laws</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.16.AP.4</b>	<p>Summarize the guidelines of science: explanations are based on observations, evidence, and testing; hypotheses must be testable; understandings and/or conclusions may change with additional empirical data; scientific knowledge must have peer review and verification before acceptance</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing</li> </ul>

Latent Fingerprints Using Vapors

- Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage
- Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard
- Forensic Science: Unit 2 Case Activity 3: The Telling Tissue
- Forensic Science: Unit 2 Case Activity 4: The Second Examination
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- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread
- Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection
- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
- Forensic Science: Unit 4 Skill Learning Activity 4: Learning

		<p>to be a Layer Detective</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.17.AP.</b>	<b>Anatomy and Physiology: Nature of Science: Students shall design and safely conduct scientific inquiry.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.17.AP.1</b>	<p>Develop and explain the appropriate procedure, controls, and variables (dependent and independent) in scientific experimentation</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>

- Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage
- Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard
- Forensic Science: Unit 2 Case Activity 3: The Telling Tissue
- Forensic Science: Unit 2 Case Activity 4: The Second Examination
- Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile
- Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis
- Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis
- Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms
- Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations
- Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles
- Forensic Science: Unit 3 Case Activity 1: The Stain in Question
- Forensic Science: Unit 3 Case Activity 2: The Glowing Light
- Forensic Science: Unit 3 Case Activity 3: The False Positive
- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis
- Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood
- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
- Forensic Science: Unit 4 Case Activity 1: The Artist's Brush
- Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment
- Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp
- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread
- Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection
- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
- Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.17.AP.2	<p>Research and apply appropriate safety precautions (refer to ADE Guidelines) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.17.AP.4	<p>Gather and analyze data using appropriate summary statistics</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second</li> </ul>

		<p>Examination</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.17.AP.5</p>	<p>Formulate valid conclusions without bias</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>Forensic Science: Unit 3 Case Activity 4: The Telling Blood</li> </ul>

		<p>Group</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
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		<ul style="list-style-type: none"> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.17.AP.6	<p>Communicate experimental results using appropriate reports, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap</li> </ul>

		<p>Door</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STRAND/CONTENT STANDARD	AR.18.AP.	Anatomy and Physiology: Nature of Science: Students shall demonstrate an understanding of current life science theories.

STANDARD/STUDENT LEARNING EXPECTATION	NS.18.AP.2	<p>Relate the development of the cell theory to current trends in cellular biology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.18.AP.4	<p>Relate the chromosome theory of heredity to recent findings in genetic research (e.g., Human Genome Project-HGP, chromosome therapy)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.19.AP.	Anatomy and Physiology: Nature of Science: Students shall use mathematics, science equipment, and technology as tools to communicate and solve life science problems.

STANDARD/STUDENT LEARNING EXPECTATION	NS.19.AP.1	<p>Collect and analyze scientific data using appropriate mathematical calculations, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making</li> </ul>
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		<p>an Impression Cast</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.19.AP.2</p>	<p>Use appropriate equipment and technology as tools for solving problems (e.g., microscopes, centrifuges, flexible arm cameras, computer software and hardware)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in</li> </ul>

		<p>Question</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> </ul>
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		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.19.AP.3	<p>Utilize technology to communicate research findings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood</li> </ul>

		<p>Group</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
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STRAND/CONTENT STANDARD	AR.20.AP.	Anatomy and Physiology: Nature of Science: Students shall describe the connections between pure and applied science.
STANDARD/STUDENT LEARNING EXPECTATION	NS.20.AP.1	<p>Compare and contrast human biology concepts in pure science and applied science</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.20.AP.3	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar</li> </ul>
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<b>STRAND/CONTENT STANDARD</b>	<b>AR.1.B.</b>	<b>Biology: Molecules and Cells: Students shall demonstrate an understanding of the role of chemistry in life processes.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MC.1.B.2</b>	<p>Describe the relationship between an enzyme and its substrate molecule(s)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.2.B.</b>	<b>Biology: Molecules and Cells: Students shall demonstrate an understanding of the structure and function of cells.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MC.2.B.3</b>	<p>Describe the role of sub-cellular structures in the life of a cell: organelles, ribosomes, cytoskeleton</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MC.2.B.4</b>	<p>Relate the function of the plasma (cell) membrane to its structure</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MC.2.B.5</b>	<p>Compare and contrast the structures of an animal cell to a plant cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.3.B.</b>	<b>Biology: Molecules and Cells: Students shall demonstrate an understanding of how cells obtain and use energy (energetics).</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MC.3.B.1</b>	<p>Compare and contrast the structure and function of mitochondria and chloroplasts</p>

		<ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.4.B.</b>	<b>Biology: Heredity and Evolution: Students shall demonstrate an understanding of heredity.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>HE.4.B.3</b>	<p>Use the laws of probability and Punnett squares to predict genotypic and phenotypic ratios</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>HE.4.B.4</b>	<p>Examine different modes of inheritance: sex linkage, codominance, crossing over, incomplete dominance, multiple alleles</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>HE.4.B.5</b>	<p>Analyze the historically significant work of prominent geneticists</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.5.B.</b>	<b>Biology: Heredity and Evolution: Students shall investigate the molecular basis of genetics.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>HE.5.B.1</b>	<p>Model the components of a DNA nucleotide and an RNA nucleotide</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>HE.5.B.2</b>	<p>Describe the Watson-Crick double helix model of DNA, using the base-pairing rule (adenine-thymine, cytosine-guanine)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> </ul>

		<ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	HE.5.B.3	<p>Compare and contrast the structure and function of DNA and RNA</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.10.B.	Biology: Nature of Science: Students shall demonstrate an understanding that science is a way of knowing.
STANDARD/STUDENT LEARNING EXPECTATION	NS.10.B.2	<p>Compare and contrast hypotheses, theories, and laws</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Fingerprinting</li> <li>Teacher Resource CD: Trace Evidence</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.10.B.4	<p>Summarize the guidelines of science: explanations are based on observations, evidence, and testing; hypotheses must be testable; understandings and/or conclusions may change with additional empirical data; scientific knowledge must have peer review and verification before acceptance</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> </ul>

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		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.11.B.</b>	<b>Biology: Nature of Science: Students shall design and safely conduct scientific inquiry.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.11.B.1</b>	<p>Develop and explain the appropriate procedure, controls, and variables (dependent and independent) in scientific experimentation</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.11.B.2</b>	<p>Research and apply appropriate safety precautions (refer to ADE Guidelines) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged</li> </ul>

		<p>Fingerprint</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.11.B.4</p>	<p>Gather and analyze data using appropriate summary statistics</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.11.B.5</p>	<p>Formulate valid conclusions without bias</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> </ul>

- Forensic Science: Unit 2 Case Activity 4: The Second Examination
- Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile
- Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis
- Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis
- Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms
- Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations
- Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles
- Forensic Science: Unit 3 Case Activity 1: The Stain in Question
- Forensic Science: Unit 3 Case Activity 2: The Glowing Light
- Forensic Science: Unit 3 Case Activity 3: The False Positive
- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis
- Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood
- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
- Forensic Science: Unit 4 Case Activity 1: The Artist's Brush
- Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment
- Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp
- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread
- Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection
- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
- Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective
- Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns
- Forensic Science: Unit 5 Case Activity 1: The Curious Line
- Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T
- Forensic Science: Unit 5 Case Activity 3: The Questioned

		<p>Lottery Ticket</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.11.B.6</p>	<p>Communicate experimental results using appropriate reports, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling</li> </ul>

		<p>a DNA Profile</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> </ul>
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<b>STRAND/CONTENT STANDARD</b>	<b>AR.12.B.</b>	<b>Biology: Nature of Science: Students shall demonstrate an understanding of current life science theories.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.12.B.4</b>	<p>Relate the development of the cell theory to current trends in cellular biology</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.12.B.6</b>	<p>Relate the chromosome theory of heredity to recent findings in genetic research (e.g., Human Genome Project-HGP, chromosome therapy)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.12.B.7</b>	<p>Research current events and topics in biology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned</li> </ul>

		<p>Parentage</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.13.B.</b>	<b>Biology: Nature of Science: Students shall use mathematics, science equipment, and technology as tools to communicate and solve life science problems.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.13.B.1</b>	<p>Collect and analyze scientific data using appropriate mathematical calculations, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> </ul>

- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis
- Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood
- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
- Forensic Science: Unit 4 Case Activity 1: The Artist's Brush
- Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment
- Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp
- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread
- Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection
- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
- Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective
- Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns
- Forensic Science: Unit 5 Case Activity 1: The Curious Line
- Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T
- Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket
- Forensic Science: Unit 5 Case Activity 4: The Careless Forger
- Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel
- Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks
- Forensic Science: Unit 6 Activity 1: Toxicological Analysis
- Forensic Science: Unit 6 Activity 2: Chromatographic Analysis
- Forensic Science: Unit 6 Activity 3: Fingerprint Analysis
- Forensic Science: Unit 6 Activity 4: Document Analysis
- Forensic Science: Unit 6 Activity 5: Blood Analysis
- Teacher Resource CD: Fingerprinting

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.13.B.2	<p>Use appropriate equipment and technology as tools for solving problems (e.g., microscopes, centrifuges, flexible arm cameras, computer software and hardware)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.13.B.3</p>	<p>Utilize technology to communicate research findings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> </ul>

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<b>STRAND/CONTENT STANDARD</b>	<b>AR.14.B.</b>	<b>Biology: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.14.B.1</b>	<p>Compare and contrast biological concepts in pure science and applied science</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.14.B.4</b>	<b>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</b>

- Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint
- Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint
- Forensic Science: Unit 1 Case Activity 3: The Paper Mark
- Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint
- Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag
- Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint
- Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details
- Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills
- Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces
- Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper
- Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors
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- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
- Forensic Science: Unit 3 Skill Learning Activity 3: Human

		<p>Blood Group Analysis</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.6.C.	Chemistry: Periodicity: Students shall explain the changes of matter using physical properties and chemical properties.
STANDARD/STUDENT LEARNING EXPECTATION	P.6.C.1	<p>Compare and contrast matter based on uniformity of particles: pure substances, solutions, heterogeneous mixtures</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> </ul>

		<ul style="list-style-type: none"> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	P.6.C.3	<p>Separate homogeneous mixtures using physical processes: chromatography</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> <li>Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
STRAND/CONTENT STANDARD	AR.14.C.	Chemistry: Stoichiometry: Students shall predict products based upon the type of chemical reaction.
STANDARD/STUDENT LEARNING EXPECTATION	S.14.C.1	<p>Given the products and reactants predict products for the following types of reactions: synthesis, decomposition, single displacement, double displacement, combustion</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STRAND/CONTENT STANDARD	AR.15.C.	Chemistry: Stoichiometry: Students shall understand the composition of solutions, their formation, and their strengths expressed in various units.
STANDARD/STUDENT LEARNING EXPECTATION	S.15.C.1	<p>Distinguish between the terms solute, solvent, solution and concentration</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	S.15.C.2	<p>Give examples for the nine solvent-solute pairs</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	S.15.C.4	<p>Given the quantity of a solution, determine the quantity of another species in the reaction</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>

STRAND/CONTENT STANDARD	AR.22.C.	Chemistry: Acids and Bases: Students shall demonstrate an understanding of titration as a laboratory tool.
STANDARD/STUDENT LEARNING EXPECTATION	AB.22.C.2	Use indicators in neutralization reactions <ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.33.C.	Chemistry: Nature of Science: Students shall design and safely conduct scientific inquiry.
STANDARD/STUDENT LEARNING EXPECTATION	NS.33.C.2	Research and apply appropriate safety precautions (refer to Arkansas Safety Lab Guide) when designing and/or conducting scientific investigations <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STRAND/CONTENT STANDARD	AR.36.C.	Chemistry: Nature of Science: Students shall describe the connections between pure and applied science.
STANDARD/STUDENT LEARNING EXPECTATION	NS.36.C.4	Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> </ul>

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<b>STRAND/CONTENT STANDARD</b>	<b>AR.4.ES.</b>	<b>Environmental Science: Nature of Science: Students shall use mathematics, science equipment, and technology as tools to communicate and solve environmental science problems.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.4.ES.1</b>	<p>Collect and analyze scientific data using appropriate mathematical calculations, figures and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False</li> </ul>

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		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.4.ES.2	<p>Use appropriate equipment and technology as tools for solving problems (e.g., microscopes, centrifuges, flexible arm cameras, computer software and hardware)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making</li> </ul>

		<p>an Impression Cast</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.4.ES.3</p>	<p>Utilize technology to communicate research findings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned</li> </ul>

		<p>Parentage</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning</li> </ul>
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		<p>About Fabrics and Weave Patterns</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STRAND/CONTENT STANDARD	AR.5.ES.	Environmental Science: Nature of Science: Students shall describe the connections between pure and applied science.
STANDARD/STUDENT LEARNING EXPECTATION	NS.5.ES.4	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> </ul>

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|  |  | <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar</li> </ul> |
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		<p>Letter T</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.1.PS.</b>	<b>Physical Science: Chemistry: Students shall demonstrate an understanding of matter's composition and structure.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.1.PS.1</b>	<p>Compare and contrast chemical and physical properties of matter, including but not limited to flammability, reactivity, density, buoyancy, viscosity, melting point and boiling point</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.1.PS.2</b>	<p>Compare and contrast chemical and physical changes, including but not limited to rusting, burning, evaporation, boiling and dehydration</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.3.PS.</b>	<b>Physical Science: Chemistry: Students shall compare and contrast chemical reactions.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.3.PS.1</b>	<p>Identify and write balanced chemical equations: decomposition reaction, synthesis reaction, single displacement reaction, double displacement reaction, combustion reaction</p>

		<ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	C.3.PS.2	<p>Predict the product(s) of a chemical reaction when given the reactants using chemical symbols and words</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	C.3.PS.5	<p>Compare and contrast the properties of reactants and products of a chemical reaction</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	C.3.PS.8	<p>Identify the observable evidence of a chemical reaction: formation of a precipitate, production of a gas, color change, changes in heat and light</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STRAND/CONTENT STANDARD	AR.7.PS.	Physical Science: Physics: Students shall demonstrate an understanding of wave and particle motion.
STANDARD/STUDENT LEARNING EXPECTATION	P.7.PS.7	<p>Explain the formation of color by light and by pigments</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	P.7.PS.8	<p>Investigate the separation of white light into colors by diffraction</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> </ul>
STRAND/CONTENT STANDARD	AR.10.PS.	Physical Science: Nature of Science: Students shall design and safely conduct a scientific inquiry to solve valid problems.
STANDARD/STUDENT LEARNING EXPECTATION	NS.10.PS.2	Research and apply appropriate safety precautions (refer to ADE

		<p>Guidelines) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.13.PS.</b>	<b>Physical Science: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.13.PS.4</b>	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> </ul>

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- Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel
- Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 2:

		<p>Practicing Handwriting Analysis Skills</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.2.P.</b>	<b>Physics: Motion and Forces: Students shall understand two-dimensional motion.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MF.2.P.5</b>	<p>Solve two-dimensional problems using the Pythagorean Theorem or the quadratic formula</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.10.P.</b>	<b>Physics: Waves and Optics: Students shall compare and contrast the law of reflection and the law of refraction.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>WO.10.P.7</b>	<p>Calculate the index of refraction through various media using the following equation: <math>n=c/v</math> (Where <math>n</math>=index of refraction; <math>c</math>=speed of light in vacuum; <math>v</math>=speed of light in medium)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Learning About Paper</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.17.P.</b>	<b>Physics: Nature of Science: Students shall safely design and conduct a scientific inquiry to solve valid problems.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.17.P.2</b>	<p>Research and apply appropriate safety precautions (ADE Guidelines) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.20.P.</b>	<b>Physics: Nature of Science: Students shall describe the connections between pure and applied science.</b>

STANDARD/STUDENT LEARNING EXPECTATION	NS.20.P.5	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> </ul>
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Arkansas Curriculum Frameworks  
 Science  
 Grade 10

STRAND/CONTENT STANDARD	AR.1.AP.	Anatomy and Physiology: Organization of the Human Body: Students shall explore the organizational structures of the body from the molecular to the organism level.
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STANDARD/STUDENT LEARNING EXPECTATION	OHB.1.AP.3	<p>Identify the major body systems</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STRAND/CONTENT STANDARD	AR.2.AP.	Anatomy and Physiology: Cellular Chemistry: Students shall understand the role of chemistry in body processes.
STANDARD/STUDENT LEARNING EXPECTATION	CC.2.AP.3	<p>Distinguish between compounds and mixtures</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	CC.2.AP.10	<p>Describe the characteristics and importance of enzymes</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> </ul>
STRAND/CONTENT	AR.3.AP.	Anatomy and Physiology: Anatomy and Physiology of the Cell:

<b>STANDARD</b>		Students shall understand that cells are the basic, structural, and functional units of life.
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	APC.3.AP.3	Describe the structure and function of organelles and cell parts <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	AR.4.AP.	<b>Anatomy and Physiology: Tissues: Students shall understand the histology of the human body</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	T.4.AP.1	Describe the structure, location, and function of each tissue category: epithelial, connective, nervous, muscle <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	AR.5.AP.	<b>Anatomy and Physiology: Body Systems: Students shall describe the anatomy and physiology of the integumentary system.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	BS.5.AP.1	Identify the components of the integumentary system <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	BS.5.AP.2	Discuss the physiological mechanisms of the skin <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	BS.5.AP.3	Identify the macroscopic and microscopic structure of the integumentary system <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	AR.10.AP.	<b>Anatomy and Physiology: Body Systems: Students shall describe the anatomy and physiology of the cardiovascular system.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	BS.10.AP.1	Identify the components of the cardiovascular system <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.2	<p>Discuss the physiological mechanisms of the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.3	<p>Identify the macroscopic, microscopic, and molecular structure of the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	BS.10.AP.4	<p>Describe disorders associated with the cardiovascular system</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>

STRAND/CONTENT STANDARD	AR.16.AP.	Anatomy and Physiology: Nature of Science: Students shall demonstrate an understanding that science is a way of knowing.
STANDARD/STUDENT LEARNING EXPECTATION	NS.16.AP.2	<p>Compare and contrast hypotheses, theories, and laws</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.16.AP.4	<p>Summarize the guidelines of science: explanations are based on observations, evidence, and testing; hypotheses must be testable; understandings and/or conclusions may change with additional empirical data; scientific knowledge must have peer review and verification before acceptance</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> </ul>

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<b>STRAND/CONTENT STANDARD</b>	<b>AR.17.AP.</b>	<b>Anatomy and Physiology: Nature of Science: Students shall design and safely conduct scientific inquiry.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.17.AP.1</b>	<p>Develop and explain the appropriate procedure, controls, and variables (dependent and independent) in scientific experimentation</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> </ul>
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		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.17.AP.2	<p>Research and apply appropriate safety precautions (refer to ADE Guidelines) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.17.AP.4	<p>Gather and analyze data using appropriate summary statistics</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.17.AP.5	<p>Formulate valid conclusions without bias</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> </ul>

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|  |  | <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> </ul> |
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		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.17.AP.6</p>	<p>Communicate experimental results using appropriate reports, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing</li> </ul>

		<p>Latent Fingerprints Using Vapors</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning</li> </ul>
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		<p>to be a Layer Detective</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.18.AP.</b>	<b>Anatomy and Physiology: Nature of Science: Students shall demonstrate an understanding of current life science theories.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.18.AP.2</b>	<p>Relate the development of the cell theory to current trends in cellular biology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>

STANDARD/STUDENT LEARNING EXPECTATION	NS.18.AP.4	<p>Relate the chromosome theory of heredity to recent findings in genetic research (e.g., Human Genome Project-HGP, chromosome therapy)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.19.AP.	Anatomy and Physiology: Nature of Science: Students shall use mathematics, science equipment, and technology as tools to communicate and solve life science problems.
STANDARD/STUDENT LEARNING EXPECTATION	NS.19.AP.1	<p>Collect and analyze scientific data using appropriate mathematical calculations, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in</li> </ul>

		<p>Question</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> </ul>
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STANDARD/STUDENT LEARNING EXPECTATION	NS.19.AP.2	<p>Use appropriate equipment and technology as tools for solving problems (e.g., microscopes, centrifuges, flexible arm cameras, computer software and hardware)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.19.AP.3</p>	<p>Utilize technology to communicate research findings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> </ul>
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		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.20.AP.</b>	<b>Anatomy and Physiology: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.20.AP.1</b>	<p>Compare and contrast human biology concepts in pure science and applied science</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> </ul>

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.20.AP.3	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap</li> </ul>

		<p>Door</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.1.B.	Biology: Molecules and Cells: Students shall demonstrate an understanding of the role of chemistry in life processes.
STANDARD/STUDENT	MC.1.B.2	Describe the relationship between an enzyme and its substrate

LEARNING EXPECTATION		<p>molecule(s)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Teacher Resource CD: The Case of the Telling Blood Group</li> </ul>
STRAND/CONTENT STANDARD	AR.2.B.	Biology: Molecules and Cells: Students shall demonstrate an understanding of the structure and function of cells.
STANDARD/STUDENT LEARNING EXPECTATION	MC.2.B.3	<p>Describe the role of sub-cellular structures in the life of a cell: organelles, ribosomes, cytoskeleton</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	MC.2.B.4	<p>Relate the function of the plasma (cell) membrane to its structure</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	MC.2.B.5	<p>Compare and contrast the structures of an animal cell to a plant cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.3.B.	Biology: Molecules and Cells: Students shall demonstrate an understanding of how cells obtain and use energy (energetics).
STANDARD/STUDENT LEARNING EXPECTATION	MC.3.B.1	<p>Compare and contrast the structure and function of mitochondria and chloroplasts</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.4.B.	Biology: Heredity and Evolution: Students shall demonstrate an understanding of heredity.
STANDARD/STUDENT LEARNING EXPECTATION	HE.4.B.3	<p>Use the laws of probability and Punnett squares to predict genotypic and phenotypic ratios</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	HE.4.B.4	<p>Examine different modes of inheritance: sex linkage, codominance, crossing over, incomplete dominance, multiple alleles</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	HE.4.B.5	<p>Analyze the historically significant work of prominent geneticists</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT STANDARD	AR.5.B.	Biology: Heredity and Evolution: Students shall investigate the molecular basis of genetics.
STANDARD/STUDENT LEARNING EXPECTATION	HE.5.B.1	<p>Model the components of a DNA nucleotide and an RNA nucleotide</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	HE.5.B.2	<p>Describe the Watson-Crick double helix model of DNA, using the base-pairing rule (adenine-thymine, cytosine-guanine)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	HE.5.B.3	<p>Compare and contrast the structure and function of DNA and RNA</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.10.B.</b>	<b>Biology: Nature of Science: Students shall demonstrate an understanding that science is a way of knowing.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.10.B.2</b>	<p>Compare and contrast hypotheses, theories, and laws</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.10.B.4</b>	<p>Summarize the guidelines of science: explanations are based on observations, evidence, and testing; hypotheses must be testable; understandings and/or conclusions may change with additional empirical data; scientific knowledge must have peer review and verification before acceptance</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency</li> </ul>

		<p>Calculations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4:</li> </ul>
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		<p>Analyzing Writing Inks</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.11.B.</b>	<b>Biology: Nature of Science: Students shall design and safely conduct scientific inquiry.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.11.B.1</b>	<p>Develop and explain the appropriate procedure, controls, and variables (dependent and independent) in scientific experimentation</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.11.B.2</b>	<p>Research and apply appropriate safety precautions (refer to ADE Guidelines) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.11.B.4</b>	<p>Gather and analyze data using appropriate summary statistics</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency</li> </ul>

		Calculations
STANDARD/STUDENT LEARNING EXPECTATION	NS.11.B.5	<p>Formulate valid conclusions without bias</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STANDARD/STUDENT	NS.11.B.6	Communicate experimental results using appropriate reports, figures,

LEARNING EXPECTATION		<p>and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying</li> </ul>
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		<p>the Precipitin Test for the Presence of Human Blood</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
STRAND/CONTENT STANDARD	AR.12.B.	Biology: Nature of Science: Students shall demonstrate an understanding of current life science theories.
STANDARD/STUDENT LEARNING EXPECTATION	NS.12.B.4	Relate the development of the cell theory to current trends in cellular biology

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.12.B.6	<p>Relate the chromosome theory of heredity to recent findings in genetic research (e.g., Human Genome Project-HGP, chromosome therapy)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	NS.12.B.7	<p>Research current events and topics in biology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND/CONTENT	AR.13.B.	Biology: Nature of Science: Students shall use mathematics, science

STANDARD		equipment, and technology as tools to communicate and solve life science problems.
STANDARD/STUDENT LEARNING EXPECTATION	NS.13.B.1	<p>Collect and analyze scientific data using appropriate mathematical calculations, figures, and tables</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a</li> </ul>

		<p>Hair and Fiber Collection</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.13.B.2</p>	<p>Use appropriate equipment and technology as tools for solving problems (e.g., microscopes, centrifuges, flexible arm cameras, computer software and hardware)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic</li> </ul>

		<p>Analysis of DNA Profiles</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> </ul>
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STANDARD/STUDENT LEARNING EXPECTATION	NS.13.B.3	<p>Utilize technology to communicate research findings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False</li> </ul>

		<p>Positive</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
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<b>STRAND/CONTENT STANDARD</b>	<b>AR.14.B.</b>	<b>Biology: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.14.B.1</b>	<p>Compare and contrast biological concepts in pure science and applied science</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.14.B.4</b>	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> </ul>
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<b>STRAND/CONTENT STANDARD</b>	<b>AR.6.C.</b>	<b>Chemistry: Periodicity: Students shall explain the changes of matter using physical properties and chemical properties.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>P.6.C.1</b>	<p>Compare and contrast matter based on uniformity of particles: pure substances, solutions, heterogeneous mixtures</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>P.6.C.3</b>	<p>Separate homogeneous mixtures using physical processes: chromatography</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Analyzing Writing Inks</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.14.C.</b>	<b>Chemistry: Stoichiometry: Students shall predict products based upon the type of chemical reaction.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>S.14.C.1</b>	<p>Given the products and reactants predict products for the following types of reactions: synthesis, decomposition, single displacement, double displacement, combustion</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> </ul>

		<ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.15.C.</b>	<b>Chemistry: Stoichiometry: Students shall understand the composition of solutions, their formation, and their strengths expressed in various units.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>S.15.C.1</b>	<p>Distinguish between the terms solute, solvent, solution and concentration</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>S.15.C.2</b>	<p>Give examples for the nine solvent-solute pairs</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>S.15.C.4</b>	<p>Given the quantity of a solution, determine the quantity of another species in the reaction</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>Teacher Resource CD: Analyzing Writing Inks</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.22.C.</b>	<b>Chemistry: Acids and Bases: Students shall demonstrate an understanding of titration as a laboratory tool.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>AB.22.C.2</b>	<p>Use indicators in neutralization reactions</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.33.C.</b>	<b>Chemistry: Nature of Science: Students shall design and safely conduct scientific inquiry.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.33.C.2</b>	<p>Research and apply appropriate safety precautions (refer to Arkansas Safety Lab Guide) when designing and/or conducting scientific investigations</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent</li> </ul>

		<p>Fingerprints on Paper</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.36.C.</b>	<b>Chemistry: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.36.C.4</b>	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>Forensic Science: Unit 3 Case Activity 3: The False</li> </ul>

		<p>Positive</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> </ul>
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<b>STRAND/CONTENT STANDARD</b>	<b>AR.4.ES.</b>	<b>Environmental Science: Nature of Science: Students shall use mathematics, science equipment, and technology as tools to communicate and solve environmental science problems.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.4.ES.1</b>	<p>Collect and analyze scientific data using appropriate mathematical calculations, figures and tables</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.4.ES.2</p>	<p>Use appropriate equipment and technology as tools for solving problems (e.g., microscopes, centrifuges, flexible arm cameras, computer software and hardware)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> </ul>

- Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations
- Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles
- Forensic Science: Unit 3 Case Activity 1: The Stain in Question
- Forensic Science: Unit 3 Case Activity 2: The Glowing Light
- Forensic Science: Unit 3 Case Activity 3: The False Positive
- Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group
- Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door
- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
- Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood
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- Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns
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- Forensic Science: Unit 5 Case Activity 4: The Careless Forger
- Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel
- Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 3:

		<p>Practicing Altered Document Analysis Skills</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>STANDARD/STUDENT LEARNING EXPECTATION</p>	<p>NS.4.ES.3</p>	<p>Utilize technology to communicate research findings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in</li> </ul>

		<p>Question</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> </ul>
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		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.5.ES.</b>	<b>Environmental Science: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.5.ES.4</b>	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> </ul>
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<b>STRAND/CONTENT STANDARD</b>	<b>AR.1.PS.</b>	<b>Physical Science: Chemistry: Students shall demonstrate an understanding of matter's composition and structure.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.1.PS.1</b>	<p>Compare and contrast chemical and physical properties of matter, including but not limited to flammability, reactivity, density, buoyancy, viscosity, melting point and boiling point</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>Teacher Resource CD: Fingerprinting</li> <li>Teacher Resource CD: Learning About Paper</li> <li>Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.1.PS.2</b>	<p>Compare and contrast chemical and physical changes, including but not limited to rusting, burning, evaporation, boiling and dehydration</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>Teacher Resource CD: Fingerprinting</li> <li>Teacher Resource CD: Learning About Paper</li> <li>Teacher Resource CD: The Case of the Silent Sentinel</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.3.PS.</b>	<b>Physical Science: Chemistry: Students shall compare and contrast chemical reactions.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.3.PS.1</b>	<p>Identify and write balanced chemical equations: decomposition reaction, synthesis reaction, single displacement reaction, double displacement reaction, combustion reaction</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.3.PS.2</b>	<p>Predict the product(s) of a chemical reaction when given the reactants using chemical symbols and words</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>C.3.PS.5</b>	Compare and contrast the properties of reactants and products of a

		<p>chemical reaction</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	C.3.PS.8	<p>Identify the observable evidence of a chemical reaction: formation of a precipitate, production of a gas, color change, changes in heat and light</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
STRAND/CONTENT STANDARD	AR.7.PS.	Physical Science: Physics: Students shall demonstrate an understanding of wave and particle motion.
STANDARD/STUDENT LEARNING EXPECTATION	P.7.PS.7	<p>Explain the formation of color by light and by pigments</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> </ul>
STANDARD/STUDENT LEARNING EXPECTATION	P.7.PS.8	<p>Investigate the separation of white light into colors by diffraction</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> </ul>
STRAND/CONTENT STANDARD	AR.13.PS.	Physical Science: Nature of Science: Students shall describe the connections between pure and applied science.
STANDARD/STUDENT LEARNING EXPECTATION	NS.13.PS.4	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent</li> </ul>

		<p>Fingerprints on Paper</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles</li> <li>• Forensic Science: Unit 3 Case Activity 1: The Stain in Question</li> <li>• Forensic Science: Unit 3 Case Activity 2: The Glowing Light</li> <li>• Forensic Science: Unit 3 Case Activity 3: The False Positive</li> <li>• Forensic Science: Unit 3 Case Activity 4: The Telling Blood Group</li> <li>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 2: Applying the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 4: Detecting Trace Amounts of Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 1: The Artist's Brush</li> <li>• Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve</li> <li>• Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 3:</li> </ul>
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		<p>Demonstrating Locard's Principle</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Skill Learning Activity 4: Learning to be a Layer Detective</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 5: Learning About Fabrics and Weave Patterns</li> <li>• Forensic Science: Unit 5 Case Activity 1: The Curious Line</li> <li>• Forensic Science: Unit 5 Case Activity 2: The Peculiar Letter T</li> <li>• Forensic Science: Unit 5 Case Activity 3: The Questioned Lottery Ticket</li> <li>• Forensic Science: Unit 5 Case Activity 4: The Careless Forger</li> <li>• Forensic Science: Unit 5 Case Activity 5: Case of the Hudson Doggerel</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li> <li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.2.P.</b>	<b>Physics: Motion and Forces: Students shall understand two-dimensional motion.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>MF.2.P.5</b>	<p>Solve two-dimensional problems using the Pythagorean Theorem or the quadratic formula</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 3 Skill Learning Activity 5: Analyzing Bloodstain Patterns</li> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> <li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.10.P.</b>	<b>Physics: Waves and Optics: Students shall compare and contrast the law of reflection and the law of refraction.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>WO.10.P.7</b>	<p>Calculate the index of refraction through various media using the following equation: <math>n=c/v</math> (Where <math>n</math>=index of refraction; <math>c</math>=speed of light in vacuum; <math>v</math>=speed of light in medium)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Learning About Paper</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.17.P.</b>	<b>Physics: Nature of Science: Students shall safely design and conduct a scientific inquiry to solve valid problems.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.17.P.2</b>	<p>Research and apply appropriate safety precautions (ADE Guidelines) when designing and/or conducting scientific investigations</p>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> </ul>
<b>STRAND/CONTENT STANDARD</b>	<b>AR.20.P.</b>	<b>Physics: Nature of Science: Students shall describe the connections between pure and applied science.</b>
<b>STANDARD/STUDENT LEARNING EXPECTATION</b>	<b>NS.20.P.5</b>	<p>Explain how the cyclical relationship between science and technology results in reciprocal advancements in science and technology</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 2: The Forged Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 3: The Paper Mark</li> <li>• Forensic Science: Unit 1 Case Activity 4: The Confusing Fingerprint</li> <li>• Forensic Science: Unit 1 Case Activity 5: The Black Plastic Bag</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 1: Taking a Direct Fingerprint</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 2: Identifying Fingerprint Ridge Details</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 5: Latent Fingerprints on Paper</li> <li>• Forensic Science: Unit 1 Skill Learning Activity 6: Exposing Latent Fingerprints Using Vapors</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> <li>• Forensic Science: Unit 2 Case Activity 2: The Uncommon Outlaw - Thomas Howard</li> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Forensic Science: Unit 2 Case Activity 4: The Second Examination</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> <li>• Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms</li> </ul>

- Forensic Science: Unit 2 Skill Learning Activity 5: Practicing Genetic Analysis using DNA Profile Frequency Calculations
- Forensic Science: Unit 2 Skill Learning Activity 6: Genetic Analysis of DNA Profiles
- Forensic Science: Unit 3 Case Activity 1: The Stain in Question
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- Forensic Science: Unit 3 Skill Learning Activity 1: Applying the Kastle-Meyer Test for the Presence of Blood
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- Forensic Science: Unit 5 Skill Learning Activity 1: Practicing Paper Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 2: Practicing Handwriting Analysis Skills
- Forensic Science: Unit 5 Skill Learning Activity 3:

		<p>Practicing Altered Document Analysis Skills</p> <ul style="list-style-type: none"><li>• Forensic Science: Unit 5 Skill Learning Activity 4: Analyzing Writing Inks</li><li>• Forensic Science: Unit 6 Activity 1: Toxicological Analysis</li><li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li><li>• Forensic Science: Unit 6 Activity 3: Fingerprint Analysis</li><li>• Forensic Science: Unit 6 Activity 4: Document Analysis</li><li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li></ul>
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