

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

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**Missouri Grade Level Expectations**  
**Science**  
**Grade 7**

<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.IN.7.1.</b>	<b>Scientific Inquiry: Science understanding is developed through the use of science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>IN.7.1.A.7.a.</b>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Formulate testable questions and hypotheses</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> </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 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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CONCEPT: GLE / BENCHMARK	IN.7.1.A.7.b.	Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in
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order to obtain evidence relevant to the explanation: Recognize the importance of the independent variable, dependent variables, control of constants, and multiple trials to the design of a valid experiment

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- Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded Cigarette - RFLP Profile Analysis
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- Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms
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- 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

		<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>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
CONCEPT: GLE / BENCHMARK	IN.7.1.A.7.c.	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Design and conduct a valid experiment</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>
CONCEPT: GLE / BENCHMARK	IN.7.1.A.7.d.	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Evaluate the design of an experiment and make suggestions for reasonable improvements or extensions of an experiment</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>
CONCEPT: GLE / BENCHMARK	IN.7.1.A.7.e.	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Recognize that different kinds of questions suggest different kinds of scientific investigations (e.g., some involve observing and describing objects organisms, or events; some involve collecting specimens; some involve experiments; some involve making observations in nature; some involve discovery of new objects and phenomena; some involve making models)</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 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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<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.A.7.f.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Acknowledge there is no fixed procedure called 'the scientific method', but some investigations involve systematic observations, carefully collected and relevant evidence, logical reasoning, and imagination in developing hypotheses and other explanations</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</li> </ul>

		<p>Fingerprint</p> <ul style="list-style-type: none"> <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> <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</li> </ul>
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		<p>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: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.B.7.b.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Determine the appropriate tools and techniques to collect data</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 -</li> </ul>

Thomas Howard

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		<p>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> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.B.7.c.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Use a variety of tools and equipment to gather data (e.g., microscopes, thermometers, analog and digital meters, computers, spring scales, balances, metric rulers, graduated cylinders, stopwatches)</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> <li>• Forensic Science: Unit 6 Activity 5: Blood Analysis</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.B.7.e.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Compare amounts/measurements</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 2: The Discarded</li> </ul>

		<p>Cigarette - RFLP Profile Analysis</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 3: The Bloody Cloth - DNA Profile Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	IN.7.1.B.7.f.	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Judge whether measurements and computation of quantities are reasonable</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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 3 Case Activity 5: The Telling Trap Door</li> </ul>
CONCEPT: GLE / BENCHMARK	IN.7.1.B.7.g.	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Calculate the range and average/mean of a set of data</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> <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>
CONCEPT: GLE / BENCHMARK	IN.7.1.C.7.a.	<p>Evidence is used to formulate explanations: Use quantitative and qualitative data as support for reasonable explanations (conclusions)</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> </ul>

- 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
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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
- Forensic Science: Unit 5 Skill Learning Activity 3: Practicing Altered Document Analysis Skills

		<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>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.C.7.b.</p>	<p>Evidence is used to formulate explanations: Use data as support for observed patterns and relationships, and to make predictions to be tested</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>

		<ul style="list-style-type: none"> <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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.C.7.c.</p>	<p>Evidence is used to formulate explanations: Recognize the possible effects of errors in observations, measurements, and calculations on the formulation of explanations (conclusions)</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>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.D.7.a.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Evaluate the</p>

reasonableness of an explanation (conclusion)

- 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
- 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 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

		<ul style="list-style-type: none"> <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: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.D.7.b.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Analyze whether evidence (data) and scientific principles support proposed explanations (hypotheses, laws, theories)</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</li> </ul>

		<p>Fingerprint Identification Skills</p> <ul style="list-style-type: none"> <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> <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> </ul>
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		<ul style="list-style-type: none"> <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: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.E.7.a.</p>	<p>The nature of science relies upon communication of results and justification of explanations: Communicate the procedures and results of investigations and explanations through: oral presentations; drawings and maps; data tables (allowing for the recording and analysis of data relevant to the experiment, such as independent and dependent variables, multiple trials, beginning and ending times or temperatures, derived quantities); graphs (bar, single line, pictograph); equations and writings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</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 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> </ul>

		<ul style="list-style-type: none"> <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 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>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.1.</b>	<b>Impact of Science, Technology and Human Activity: The nature of technology can advance, and is advanced by, science as it seeks to apply scientific knowledge in ways that meet human needs</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.1.A.7.a.</b>	<p>Designed objects are used to do things better or more easily and to do some things that could not otherwise be done at all: Explain how technological improvements, such as those developed for use in space exploration, the military, or medicine, have led to the invention of new products that may improve lives here on Earth (e.g., new materials, freeze-dried foods, infrared goggles, Velcro, satellite imagery, robotics, lasers)</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> </ul>

		<ul style="list-style-type: none"> <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> <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> </ul>
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.1.B.7.a.</p>	<p>Advances in technology often result in improved data collection and an increase in scientific information: Identify the link between technological developments and the scientific discoveries made possible through their development (e.g., Hubble telescope and stellar evolution, composition and structure of the universe; the electron microscope and cell organelles; sonar and the composition of the Earth; manned and unmanned space missions and space exploration; Doppler radar and weather conditions; MRI and CAT-scans and brain activity)</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 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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<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.1.C.7.a.</p>	<p>Technological solutions to problems often have drawbacks as well as benefits: Describe how technological solutions to problems (e.g., storm water runoff, fiber optics, windmills, efficient car design, electronic trains without conductors, sonar, robotics, Hubble telescope) can have both benefits and drawbacks (e.g., design constraints, unintended consequences, risks) (Assess Locally)</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 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> </ul>
STRAND: BIG IDEA / STANDARD	MO.ST.8.2.	Impact of Science, Technology and Human Activity: Historical and cultural perspectives of scientific explanations help to improve understanding of the nature of science and how science knowledge and technology evolve over time
CONCEPT: GLE / BENCHMARK	ST.8.2.B.7.a.	<p>Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Recognize the difficulty science innovators experience as they attempt to break through accepted ideas (hypotheses, laws, theories) of their time to reach conclusions that may lead to changes in those ideas and serve to advance scientific understanding (e.g., Darwin, Copernicus, Newton)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> </ul>
CONCEPT: GLE / BENCHMARK	ST.8.2.B.7.b.	Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Recognize explanations have changed over time as a result of new evidence

		<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 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>
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STRAND: BIG IDEA / STANDARD	MO.ST.8.3.	Impact of Science, Technology and Human Activity: Science and technology affect, and are affected by, society
CONCEPT: GLE / BENCHMARK	ST.8.3.B.7.a.	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Describe ways in which science and society influence one another (e.g., scientific knowledge and the procedures used by scientists influence the way many individuals in society think about themselves, others, and the environment; societal challenges often inspire questions for scientific research; social priorities often influence research priorities through the availability of funding for research)</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> </ul>

		<ul style="list-style-type: none"> <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> <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> </ul>
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		<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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.3.B.7.b.</p>	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Identify and evaluate the physical, social, economic, and/or environmental problems that may be overcome using science and technology (e.g., the need for alternative fuels, human travel in space, AIDS)</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</li> </ul>

		<p>Genetic Analysis using DNA Profile Frequency 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: 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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**Missouri Grade Level Expectations  
Science  
Grade 8**

<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ME.1.1.</b>	<b>Properties and Principles of Matter and Energy: Changes in properties and states of matter provide evidence of the atomic theory of matter</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ME.1.1.D.8.c.</b>	<p>Physical changes in the state of matter that result from thermal changes can be explained by the Kinetic Theory of Matter: Predict the effect of transfer on the physical properties of a substance as it changes to or from a solid, liquid, or gas (i.e., phase changes that occur during freezing, melting, evaporation, boiling, condensation)</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: BIG IDEA / STANDARD</b>	<b>MO.LO.3.2.</b>	<b>Characteristic and Interactions of Living Organisms: Living organisms carry out life processes in order to survive</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.A.8.a.</b>	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: Recognize the cell membrane helps regulate the transfer of materials in and out of the cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.A.8.b.</b>	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: Recognize the function of the chloroplast is photosynthesis</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.C.8.a.</b>	<p>Complex multicellular organisms have systems that interact to carry out life processes through physical and chemical means: Identify and give examples of each level of organization (cell, tissue, organ, organ system) in multicellular organisms (plants, animals)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 3: The Telling Tissue</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.C.8.c.</b>	<p>Complex multicellular organisms have systems that interact to carry out life processes through physical and chemical means: Explain the interactions between the circulatory and digestive systems as nutrients are processed by the digestive system, passed into the blood stream, and transported in and out of the cell</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> </ul>

		<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 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>
CONCEPT: GLE / BENCHMARK	LO.3.2.C.8.f.	<p>Complex multicellular organisms have systems that interact to carry out life processes through physical and chemical means: Explain the interactions between the circulatory and respiratory systems in exchanging oxygen and carbon dioxide between cells and the atmosphere (when oxygen enters the body, passes into the blood stream, and is transported into the cell; carbon dioxide is transported out of the cell, passes into the blood stream, and exits the body)</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: BIG IDEA / STANDARD	MO.LO.3.3.	Characteristic and Interactions of Living Organisms: There is a genetic basis for the transfer of biological characteristics from one generation to the next through reproductive processes
CONCEPT: GLE / BENCHMARK	LO.3.3.C.8.a.	Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Identify chromosomes as cellular structures that occur in pairs that carry hereditary information in units called genes

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.IN.7.1.</b>	<b>Scientific Inquiry: Science understanding is developed through the use of science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>IN.7.1.A.8.a.</b>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Formulate testable questions and hypotheses</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 the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> </ul>

		<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> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.A.8.b.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Recognize the importance of the independent variable, dependent variables, control of constants, and multiple trials to the design of a valid experiment</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>• 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>

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CONCEPT: GLE	IN.7.1.A.8.c.	Scientific inquiry includes the ability of students to formulate a testable
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/ BENCHMARK		<p>question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Design and conduct a valid experiment</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>
CONCEPT: GLE / BENCHMARK	IN.7.1.A.8.d.	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Evaluate the design of an experiment and make suggestions for reasonable improvements or extensions of an experiment</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>
CONCEPT: GLE / BENCHMARK	IN.7.1.A.8.e.	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Recognize that different kinds of questions suggest different kinds of scientific investigations (e.g., some involve observing and describing objects organisms, or events; some involve collecting specimens; some involve experiments; some involve making observations in nature; some involve discovery of new objects and phenomena; some involve making models)</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 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</li> </ul>

		<p>Genetic Analysis using DNA Profile Frequency 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 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 3: The Incriminating Headlamp</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 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>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.A.8.f.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Acknowledge there is no fixed procedure called 'the scientific method', but some investigations involve systematic observations, carefully collected and relevant evidence, logical reasoning, and imagination in developing hypotheses and other explanations</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>

		<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 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> </ul>
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		<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: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.B.8.b.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Determine the appropriate tools and techniques to collect data</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 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
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- 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

		<ul style="list-style-type: none"> <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>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.B.8.c.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Use a variety of tools and equipment to gather data (e.g., microscopes, thermometers, analog and digital meters, computers, spring scales, balances, metric rulers, graduated cylinders, stopwatches)</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 the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood</li> </ul>

		<p>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> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
CONCEPT: GLE / BENCHMARK	IN.7.1.B.8.e.	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Compare amounts/measurements</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> </ul>
CONCEPT: GLE / BENCHMARK	IN.7.1.B.8.f.	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Judge whether measurements and computation of quantities are reasonable</p>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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 3 Case Activity 5: The Telling Trap Door</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.B.8.g.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Calculate the range and average/mean of a set of data</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>• 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> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.C.8.a.</p>	<p>Evidence is used to formulate explanations: Use quantitative and qualitative data as support for reasonable explanations (conclusions)</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 -</li> </ul>

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
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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: Practicing

		<p>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> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.C.8.b.</p>	<p>Evidence is used to formulate explanations: Use data as support for observed patterns and relationships, and to make predictions to be tested</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>

		<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> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.C.8.c.</p>	<p>Evidence is used to formulate explanations: Recognize the possible effects of errors in observations, measurements, and calculations on the formulation of explanations (conclusions)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 5: Practicing</li> </ul>

		Genetic Analysis using DNA Profile Frequency Calculations
CONCEPT: GLE / BENCHMARK	IN.7.1.D.8.a.	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Evaluate the reasonableness of an explanation (conclusion)</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 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> </ul>

		<ul style="list-style-type: none"> <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: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.D.8.b.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Analyze whether evidence (data) and scientific principles support proposed explanations (hypotheses, laws, theories)</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> </ul>

		<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> <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</li> </ul>
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		<p>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> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>IN.7.1.E.8.a.</p>	<p>The nature of science relies upon communication of results and justification of explanations: Communicate the procedures and results of investigations and explanations through: oral presentations; drawings and maps; data tables (allowing for the recording and analysis of data relevant to the experiment, such as independent and dependent variables, multiple trials, beginning and ending times or temperatures, derived quantities); graphs (bar, single line, pictograph); equations and writings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</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 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> </ul>

		<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 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>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.1.</b>	<b>Impact of Science, Technology and Human Activity: The nature of technology can advance, and is advanced by, science as it seeks to apply scientific knowledge in ways that meet human needs</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.1.A.8.a.</b>	<p>Designed objects are used to do things better or more easily and to do some things that could not otherwise be done at all: Explain how technological improvements, such as those developed for use in space exploration, the military, or medicine, have led to the invention of new products that may improve lives here on Earth (e.g., new materials, freeze-dried foods, infrared goggles, Velcro, satellite imagery, robotics, lasers)</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> </ul>

- 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
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- 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 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
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- 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

		<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> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.1.B.8.a.</p>	<p>Advances in technology often result in improved data collection and an increase in scientific information: Identify the link between technological developments and the scientific discoveries made possible through their development (e.g., Hubble telescope and stellar evolution, composition and structure of the universe; the electron microscope and cell organelles; sonar and the composition of the Earth; manned and unmanned space missions and space exploration; Doppler radar and weather conditions; MRI and CAT-scans and brain activity)</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 -</li> </ul>

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
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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 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 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

		<p>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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.1.C.8.a.</p>	<p>Technological solutions to problems often have drawbacks as well as benefits: Describe how technological solutions to problems (e.g., storm water runoff, fiber optics, windmills, efficient car design, electronic trains without conductors, sonar, robotics, Hubble telescope) can have both benefits and drawbacks (e.g., design constraints, unintended consequences, risks) (Assess Locally)</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>

		<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>
STRAND: BIG IDEA / STANDARD	MO.ST.8.2.	Impact of Science, Technology and Human Activity: Historical and cultural perspectives of scientific explanations help to improve understanding of the nature of science and how science knowledge and technology evolve over time
CONCEPT: GLE / BENCHMARK	ST.8.2.B.8.a.	Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Recognize the difficulty science innovators experience as they attempt to break

		<p>through accepted ideas (hypotheses, laws, theories) of their time to reach conclusions that may lead to changes in those ideas and serve to advance scientific understanding (e.g., Darwin, Copernicus, Newton)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.2.B.8.b.</p>	<p>Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Recognize explanations have changed over time as a result of new evidence</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 the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> </ul>

		<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> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.3.</b>	<b>Impact of Science, Technology and Human Activity: Science and technology affect, and are affected by, society</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.3.B.8.a.</b>	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Describe ways in which science and society influence one another (e.g., scientific knowledge and the procedures used by scientists influence the way many individuals in society think about themselves, others, and the environment; societal challenges often inspire questions for scientific research; social priorities often influence research priorities through the availability of funding for research)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> </ul>

- 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
- Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage
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- 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

		<p>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> </ul>
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**Missouri Grade Level Expectations**  
**Science**  
**Grade 9**

<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ME.1.1.</b>	<b>Properties and Principles of Matter and Energy: Changes in properties and states of matter provide evidence of the atomic theory of matter</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ME.1.1.A.9-12.a.</b>	<p>Objects, and the materials they are made of, have properties that can be used to describe and classify them: Compare the densities of regular and irregular objects using their respective measures of volume and mass</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ME.1.1.A.9-12.b.</b>	<p>Objects, and the materials they are made of, have properties that can be used to describe and classify them: Identify pure substances by their physical and chemical properties (i.e., color, luster/reflectivity, hardness, conductivity, density, pH, melting point, boiling point, specific heat, solubility, phase at room temperature, chemical reactivity)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ME.1.1.B.9-12.a.</b>	Properties of mixtures depend upon the concentrations, properties, and interactions of particles: Classify solutions as dilute, concentrated, or saturated

		<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>
CONCEPT: GLE / BENCHMARK	ME.1.1.B.9-12.c.	<p>Properties of mixtures depend upon the concentrations, properties, and interactions of particles: Predict the effect of the properties of the solvent or solute (e.g., polarity, temperature, surface area/particle size, concentration, agitation) on the solubility of a substance</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>
CONCEPT: GLE / BENCHMARK	ME.1.1.D.9-12.b.	<p>Physical changes in states of matter due to thermal changes in materials can be explained by the Kinetic Theory of Matter: Predict the effect of a temperature change on the properties (e.g., pressure, density) of a material (solids, liquids, gases)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
CONCEPT: GLE / BENCHMARK	ME.1.1.D.9-12.c.	<p>Physical changes in states of matter due to thermal changes in materials can be explained by the Kinetic Theory of Matter: Predict the effect of pressure changes on the properties (e.g., temperature, density) of a material (solids, liquids, gases)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
CONCEPT: GLE / BENCHMARK	ME.1.1.G.9-12.a.	<p>Properties of objects and states of matter can change chemically and/or physically: Distinguish between physical and chemical changes in matter</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>
CONCEPT: GLE / BENCHMARK	ME.1.1.H.9-12.d.	<p>Chemical bonding is the combining of different pure substances (elements, compounds) to form new substances with different properties: Identify the consequences of different types of reactions (i.e., oxidation/reduction reactions such as combustion, acid/base reactions) to humans and human activity</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: BIG IDEA /	MO.LO.3.1.	<p>Characteristic and Interactions of Living Organisms: There is a fundamental unity underlying the diversity of all living organisms</p>

STANDARD		
CONCEPT: GLE / BENCHMARK	LO.3.1.C.9-12.a.	<p>Cells are the fundamental units of structure and function of all living things: Recognize all organisms are composed of cells, the fundamental units of structure and function</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.1.C.9-12.b.	<p>Cells are the fundamental units of structure and function of all living things: Describe the structure of cell parts (e.g., cell wall, cell membrane, cytoplasm, nucleus, chloroplast, mitochondrion, ribosomes, vacuole) found in different types of cells (e.g., bacterial, plant, skin, nerve, blood, muscle) and the functions they perform (e.g., structural support, transport of materials, storage of genetic information, photosynthesis and respiration, synthesis of new molecules, waste disposal) that are necessary to the survival of the cell and organism</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.1.E.9-12.b.	<p>Biological classifications are based on how organisms are related: Explain how and why the classification of any taxon might change as more is learned about the organisms assigned to that taxon</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> </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 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: BIG IDEA / STANDARD	MO.LO.3.2.	Characteristic and Interactions of Living Organisms: Living organisms carry out life processes in order to survive

CONCEPT: GLE / BENCHMARK	LO.3.2.A.9-12.a.	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: 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>
CONCEPT: GLE / BENCHMARK	LO.3.2.A.9-12.b.	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: Compare and contrast the structure and function of cell wall and cell membranes</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.2.A.9-12.c.	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: Explain physical and chemical interactions that occur between organelles as they carry out life processes</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.2.D.9-12.d.	<p>Cells carry out chemical transformations that use energy for the synthesis or breakdown of organic compounds: Explain how protein enzymes affect chemical reactions (e.g., the breakdown of food molecules)</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>
CONCEPT: GLE / BENCHMARK	LO.3.2.D.9-12.e.	<p>Cells carry out chemical transformations that use energy for the synthesis or breakdown of organic compounds: Interpret a data table showing the effects of an enzyme on a biochemical reaction</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>
CONCEPT: GLE / BENCHMARK	LO.3.2.E.9-12.a.	<p>Protein structure and function are coded by the DNA (Deoxyribonucleic acid) molecule: Explain how the DNA code determines the sequence of amino acids necessary for protein synthesis</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>
CONCEPT: GLE / BENCHMARK	LO.3.2.F.9-12.d.	<p>Cellular activities and responses can maintain stability internally while external conditions are changing (homeostasis): Explain how water is important to cells (e.g., is a buffer for body temperature, provides soluble environment for chemical reactions, serves as a reactant in chemical reactions, provides hydration that maintains cell turgidity, maintains protein shape)</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND: BIG IDEA / STANDARD	MO.LO.3.3.	Characteristic and Interactions of Living Organisms: There is a genetic basis for the transfer of biological characteristics from one generation to the next through reproductive processes
CONCEPT: GLE / BENCHMARK	LO.3.3.B.9-12.b.	<p>All living organisms have genetic material (DNA) that carries hereditary information: Describe the chemical and structural properties of DNA (e.g., DNA is a large polymer formed from linked subunits of four kinds of nitrogen bases; genetic information is encoded in genes based on the sequence of subunits; each DNA molecule in a cell forms a single chromosome) (Assess the concepts - NOT memorization of nitrogen base pairs)</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.B.9-12.c.	<p>All living organisms have genetic material (DNA) that carries hereditary information: Recognize that DNA codes for proteins, which are expressed as the heritable characteristics of an organism</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.a.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Recognize the chromosomes of daughter cells, formed through the processes of asexual reproduction and mitosis, the formation of somatic (body) cells in multicellular organisms, are identical to the chromosomes of the parent cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.b.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Recognize that during meiosis, the formation of sex cells, chromosomes are reduced to half the number present in the parent cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.c.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Explain how fertilization restores the diploid number of chromosomes</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.d.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Identify the implications of human sex chromosomes for sex determination</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.D.9-12.a.	<p>There is heritable variation within every species of organism: Describe the advantages and disadvantages of asexual and sexual reproduction with regard to variation within a population</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.D.9-12.b.	<p>There is heritable variation within every species of organism: Describe how genes can be altered and combined to create genetic variation within a species (e.g., mutation, recombination of genes)</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.D.9-12.c.	<p>There is heritable variation within every species of organism: Recognize that new heritable characteristics can only result from new combinations of existing genes or from mutations of genes in an organism's sex cells</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.E.9-12.a.	<p>The pattern of inheritance for many traits can be predicted by using the principles of Mendelian genetics: Explain how genotypes (heterozygous and homozygous) contribute to phenotypic variation within a species</p> <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>
CONCEPT: GLE / BENCHMARK	LO.3.3.E.9-12.b.	<p>The pattern of inheritance for many traits can be predicted by using the principles of Mendelian genetics: Predict the probability of the occurrence of specific traits, including sex-linked traits, in an offspring by using a monohybrid cross</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>
STRAND: BIG IDEA / STANDARD	MO.EC.4.3.	Changes in Ecosystems and Interactions of Organisms with their Environments: Genetic variation sorted by the natural selection process explains evidence of biological evolution
CONCEPT: GLE / BENCHMARK	EC.4.3.C.9-12.c.	<p>Natural selection is the process of sorting individuals based on their ability to survive and reproduce within their ecosystem: Explain how genetic homogeneity may cause a population to be more susceptible to extinction (e.g., succumbing to a disease for which there is no natural resistance)</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>
STRAND: BIG IDEA / STANDARD	MO.ES.5.2.	Processes and Interactions of the Earth's Systems (Geosphere, Atmosphere, and Hydrosphere): Earth's Systems (geosphere, atmosphere, and hydrosphere) interact with one another as they undergo change by common processes
CONCEPT: GLE / BENCHMARK	ES.5.2.B.9-12.d.	<p>There are internal processes and sources of energy within the geosphere that cause changes in Earth's crustal plates: Relate the densities of the materials found in continental and oceanic plates to the processes that result in each type of plate boundary (i.e., diverging, converging, transform)</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>Teacher Resource CD: Trace Evidence</li> </ul>
STRAND: BIG IDEA / STANDARD	MO.SI.7.1.	Scientific Inquiry: Science understanding is developed through the use of science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking
CONCEPT: GLE / BENCHMARK	SI.7.1.A.9-12.a.	Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Formulate testable

questions and hypotheses

- 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
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- 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
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		<ul style="list-style-type: none"> <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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.b.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Analyzing an experiment, identify the components (i.e., independent variable, dependent variables, control of constants, multiple trials) and explain their importance to the design of a valid experiment</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>• 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 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</li> </ul>

		<p>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>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.c.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Design and conduct a valid experiment</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>

<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.f.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Acknowledge there is no fixed procedure called 'the scientific method', but that some investigations involve systematic observations, carefully collected and relevant evidence, logical reasoning, and some imagination in developing hypotheses and other explanations</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 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> </ul>
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.g.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Evaluate the design of an experiment and make suggestions for reasonable improvements</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>
<p>CONCEPT: GLE</p>	<p>SI.7.1.B.9-</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and</p>

/ BENCHMARK	12. a.	<p>quantitative observations: Make qualitative and quantitative observations using the appropriate senses, tools and equipment to gather data (e.g., microscopes, thermometers, analog and digital meters, computers, spring scales, balances, metric rulers, graduated cylinders)</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 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>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.B.9-12.c.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Determine the appropriate tools and techniques to collect, analyze, and interpret data</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
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- Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms
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		<p>Doggerel</p> <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>
CONCEPT: GLE / BENCHMARK	SI.7.1.B.9-12.d.	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Judge whether measurements and computation of quantities are reasonable</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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 3 Case Activity 5: The Telling Trap Door</li> </ul>
CONCEPT: GLE / BENCHMARK	SI.7.1.B.9-12.e.	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Calculate the range, average/mean, percent, and ratios for sets of data</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>• 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> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	SI.7.1.C.9-12.a.	<p>Evidence is used to formulate explanations: Use quantitative and qualitative data as support for reasonable explanations (conclusions)</p>

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- Forensic Science: Unit 1 Case Activity 3: The Paper Mark
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- Forensic Science: Unit 4 Case Activity 4: The Torn Sleeve
- Forensic Science: Unit 4 Case Activity 5: The Fraudulent Thread

		<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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.C.9-12.b.</p>	<p>Evidence is used to formulate explanations: Analyze experimental data to determine patterns, relationship, perspectives, and credibility of explanations (e.g., predict/extrapolate data, explain the relationship between the independent and dependent variable)</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 Case Activity 1: The Questioned Parentage</li> </ul>

- 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
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- Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection
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- Forensic Science: Unit 4 Skill Learning Activity 3: Demonstrating Locard's Principle
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- 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

		<ul style="list-style-type: none"> <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>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.C.9-12.c.</p>	<p>Evidence is used to formulate explanations: Identify the possible effects of errors in observations, measurements, and calculations, on the validity and reliability of data and resultant explanations (conclusions)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.D.9-12.a.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Analyze whether evidence (data) and scientific principles support proposed explanations (hypotheses, laws, theories)</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
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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 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

		<p>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>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.D.9-12.b.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Evaluate the reasonableness of an explanation (conclusion)</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</li> </ul>

		<p>Kastle-Meyer Test for the Presence of Blood</p> <ul style="list-style-type: none"> <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: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
CONCEPT: GLE	SI.7.1.E.9-	The nature of science relies upon communication of results and justification of

/ BENCHMARK	12. a.	<p>explanations: Communicate the procedures and results of investigations and explanations through: oral presentations; drawings and maps; data tables (allowing for the recording and analysis of data relevant to the experiment such as independent and dependent variables, multiple trials, beginning and ending times or temperatures, derived quantities); graphs (bar, single, and multiple line); equations and writings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</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 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 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</li> </ul>
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		<p>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> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.E.9-12.b.</p>	<p>The nature of science relies upon communication of results and justification of explanations: Communicate and defend a scientific argument</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</li> </ul>

		<p>Kastle-Meyer Test for the Presence of Blood</p> <ul style="list-style-type: none"> <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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.E.9-12.c.</p>	<p>The nature of science relies upon communication of results and justification of explanations: Explain the importance of the public presentation of scientific work and supporting evidence to the scientific community (e.g., work and evidence must be critiqued, reviewed, and validated by peers; needed for subsequent investigations by peers; results can influence the decisions regarding future scientific work)</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> </ul>

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- 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 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

		<p>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>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.1.</b>	<b>Impact of Science, Technology and Human Activity: The nature of technology can advance, and is advanced by, science as it seeks to apply scientific knowledge in ways that meet human needs</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.1.B.9-12.a.</b>	<p>Advances in technology often result in improved data collection and an increase in scientific information: Recognize the relationships linking technology and science (e.g., how technological problems may create a demand for new science knowledge, how new technologies make it possible for scientists to extend research and advance 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> </ul>

- 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
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- Forensic Science: Unit 2 Skill Learning Activity 4: A Closer Look at STR Polymorphisms
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- Forensic Science: Unit 4 Skill Learning Activity 2: Making an Impression Cast
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- 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

		<ul style="list-style-type: none"> <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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.1.C.9-12.a.</p>	<p>Technological solutions to problems often have drawbacks as well as benefits: Identify and evaluate the drawbacks (e.g., design constraints, unintended consequences, risks) and benefits of technological solutions to a given problem (e.g., damming a river for flood control, using pesticides to eliminate mosquitoes, genetic engineering of cells, use of satellite communications to gather information)</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>

		<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>
STRAND: BIG IDEA / STANDARD	MO.ST.8.2.	Impact of Science, Technology and Human Activity: Historical and cultural perspectives of scientific explanations help to improve understanding of the nature of science and how science knowledge and technology evolve over time
CONCEPT: GLE / BENCHMARK	ST.8.2.B.9-12.a.	Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Identify and describe how explanations (hypotheses, laws, theories) of scientific

		<p>phenomena have changed over time as a result of new evidence (e.g., model of the solar system, basic structure of matter, structure of an atom, Theory of Plate Tectonics, Big Bang and nebular theory of the Universe, explanation of electric current)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> </ul>
CONCEPT: GLE / BENCHMARK	ST.8.2.B.9-12.b.	<p>Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Identify and analyze current theories that are being questioned, and compare them to new theories that have emerged to challenge older ones (e.g., Theory of Evolution, theories of extinction, global warming) (Assess Locally)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Fingerprinting</li> </ul>
STRAND: BIG IDEA / STANDARD	MO.ST.8.3.	Impact of Science, Technology and Human Activity: Science and technology affect, and are affected by, society
CONCEPT: GLE / BENCHMARK	ST.8.3.B.9-12.a.	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Analyze the roles of science and society as they interact to determine the direction of scientific and technological progress (e.g., prioritization of and funding for new scientific research and technological development is determined on the basis of individual, political and social values and needs; understanding basic concepts and principles of science and technology influences debate about the economics, policies, politics, and ethics of various scientific and technological challenges )</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</li> </ul>

		<p>Amounts of Blood</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 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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.3.B.9-12.b.</p>	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Identify and describe major scientific and technological challenges to society and their ramifications for public policy (e.g., global warming, limitations to fossil fuels, genetic engineering of plants, space and/or medical research)</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</li> </ul>

		<p>- DNA Profile Analysis</p> <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 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> </ul>
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CONCEPT: GLE / BENCHMARK	ST.8.3.C.9-12.c.	<p>Scientific ethics require that scientists must not knowingly subject people or the community to health or property risks without their knowledge and consent: Identify and evaluate the role of models as an ethical alternative to direct experimentation (e.g., using a model for a stream rather than pouring oil in an existing stream when studying the effects of oil pollution)</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 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>Teacher Resource CD: Trace Evidence</li> </ul>
CONCEPT: GLE / BENCHMARK	ST.8.3.D.9-12.a.	<p>Scientific information is presented through a number of credible sources, but is at times influenced in such a way to become non-credible: Evaluate a given source for its scientific credibility (e.g., articles in a new periodical quoting an 'eye witness', a scientist speaking within or outside his/her area of expertise)</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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- 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>• Teacher Resource CD: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
CONCEPT: GLE / BENCHMARK	ST.8.3.D.9-12.b.	<p>Scientific information is presented through a number of credible sources, but is at times influenced in such a way to become non-credible: Explain why accurate record-keeping, openness, and replication are essential for maintaining an investigator's credibility with other scientists and society</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>

**Missouri Grade Level Expectations  
Science  
Grade 10**

STRAND: BIG IDEA / STANDARD	MO.ME.1.1.	Properties and Principles of Matter and Energy: Changes in properties and states of matter provide evidence of the atomic theory of matter
CONCEPT: GLE / BENCHMARK	ME.1.1.A.9-12.a.	<p>Objects, and the materials they are made of, have properties that can be used to describe and classify them: Compare the densities of regular and irregular objects using their respective measures of volume and mass</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
CONCEPT: GLE / BENCHMARK	ME.1.1.A.9-12.b.	<p>Objects, and the materials they are made of, have properties that can be used to describe and classify them: Identify pure substances by their physical and chemical properties (i.e., color, luster/reflectivity, hardness, conductivity, density, pH, melting point, boiling point, specific heat, solubility, phase at room temperature, chemical reactivity)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating</li> </ul>

		Headlamp
CONCEPT: GLE / BENCHMARK	ME.1.1.B.9-12.a.	<p>Properties of mixtures depend upon the concentrations, properties, and interactions of particles: Classify solutions as dilute, concentrated, or saturated</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>
CONCEPT: GLE / BENCHMARK	ME.1.1.B.9-12.c.	<p>Properties of mixtures depend upon the concentrations, properties, and interactions of particles: Predict the effect of the properties of the solvent or solute (e.g., polarity, temperature, surface area/particle size, concentration, agitation) on the solubility of a substance</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>
CONCEPT: GLE / BENCHMARK	ME.1.1.D.9-12.b.	<p>Physical changes in states of matter due to thermal changes in materials can be explained by the Kinetic Theory of Matter: Predict the effect of a temperature change on the properties (e.g., pressure, density) of a material (solids, liquids, gases)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
CONCEPT: GLE / BENCHMARK	ME.1.1.D.9-12.c.	<p>Physical changes in states of matter due to thermal changes in materials can be explained by the Kinetic Theory of Matter: Predict the effect of pressure changes on the properties (e.g., temperature, density) of a material (solids, liquids, gases)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 4 Case Activity 3: The Incriminating Headlamp</li> </ul>
CONCEPT: GLE / BENCHMARK	ME.1.1.G.9-12.a.	<p>Properties of objects and states of matter can change chemically and/or physically: Distinguish between physical and chemical changes in matter</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>
CONCEPT: GLE / BENCHMARK	ME.1.1.H.9-12.d.	<p>Chemical bonding is the combining of different pure substances (elements, compounds) to form new substances with different properties: Identify the consequences of different types of reactions (i.e., oxidation/reduction reactions such as combustion, acid/base reactions) to humans and human activity</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: BIG IDEA / STANDARD</b>	<b>MO.LO.3.1.</b>	<b>Characteristic and Interactions of Living Organisms: There is a fundamental unity underlying the diversity of all living organisms</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.1.C.9-12.a.</b>	<p>Cells are the fundamental units of structure and function of all living things: Recognize all organisms are composed of cells, the fundamental units of structure and function</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.1.C.9-12.b.</b>	<p>Cells are the fundamental units of structure and function of all living things: Describe the structure of cell parts (e.g., cell wall, cell membrane, cytoplasm, nucleus, chloroplast, mitochondrion, ribosomes, vacuole) found in different types of cells (e.g., bacterial, plant, skin, nerve, blood, muscle) and the functions they perform (e.g., structural support, transport of materials, storage of genetic information, photosynthesis and respiration, synthesis of new molecules, waste disposal) that are necessary to the survival of the cell and organism</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.1.E.9-12.b.</b>	<p>Biological classifications are based on how organisms are related: Explain how and why the classification of any taxon might change as more is learned about the organisms assigned to that taxon</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</li> </ul>

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 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

		<ul style="list-style-type: none"> <li>Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.LO.3.2.</b>	<b>Characteristic and Interactions of Living Organisms: Living organisms carry out life processes in order to survive</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.A.9-12.a.</b>	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: 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>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.A.9-12.b.</b>	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: Compare and contrast the structure and function of cell wall and cell membranes</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.A.9-12.c.</b>	<p>The cell contains a set of structures called organelles that interact to carry out life processes through physical and chemical means: Explain physical and chemical interactions that occur between organelles as they carry out life processes</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.D.9-12.d.</b>	<p>Cells carry out chemical transformations that use energy for the synthesis or breakdown of organic compounds: Explain how protein enzymes affect chemical reactions (e.g., the breakdown of food molecules)</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>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.D.9-12.e.</b>	<p>Cells carry out chemical transformations that use energy for the synthesis or breakdown of organic compounds: Interpret a data table showing the effects of an enzyme on a biochemical reaction</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>CONCEPT: GLE / BENCHMARK</b>	<b>LO.3.2.E.9-12.a.</b>	<p>Protein structure and function are coded by the DNA (Deoxyribonucleic acid) molecule: Explain how the DNA code determines the sequence of amino acids necessary for protein synthesis</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</li> </ul>

		<p>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>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.2.F.9-12.d.	<p>Cellular activities and responses can maintain stability internally while external conditions are changing (homeostasis): Explain how water is important to cells (e.g., is a buffer for body temperature, provides soluble environment for chemical reactions, serves as a reactant in chemical reactions, provides hydration that maintains cell turgidity, maintains protein shape)</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
STRAND: BIG IDEA / STANDARD	MO.LO.3.3.	<p>Characteristic and Interactions of Living Organisms: There is a genetic basis for the transfer of biological characteristics from one generation to the next through reproductive processes</p>
CONCEPT: GLE / BENCHMARK	LO.3.3.B.9-12.b.	<p>All living organisms have genetic material (DNA) that carries hereditary information: Describe the chemical and structural properties of DNA (e.g., DNA is a large polymer formed from linked subunits of four kinds of nitrogen bases; genetic information is encoded in genes based on the sequence of subunits; each DNA molecule in a cell forms a single chromosome) (Assess the concepts - NOT memorization of nitrogen base pairs)</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.B.9-12.c.	<p>All living organisms have genetic material (DNA) that carries hereditary information: Recognize that DNA codes for proteins, which are expressed as the heritable characteristics of an organism</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 -</li> </ul>

		<p>Thomas Howard</p> <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>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.a.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Recognize the chromosomes of daughter cells, formed through the processes of asexual reproduction and mitosis, the formation of somatic (body) cells in multicellular organisms, are identical to the chromosomes of the parent cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.b.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Recognize that during meiosis, the formation of sex cells, chromosomes are reduced to half the number present in the parent cell</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.c.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Explain how fertilization restores the diploid number of chromosomes</p> <ul style="list-style-type: none"> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.C.9-12.d.	<p>Chromosomes are components of cells that occur in pairs and carry hereditary information from one cell to daughter cells and from parent to offspring during reproduction: Identify the implications of human sex chromosomes for sex determination</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</li> </ul>

		<ul style="list-style-type: none"> <li>- 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>
CONCEPT: GLE / BENCHMARK	LO.3.3.D.9-12.a.	<p>There is heritable variation within every species of organism: Describe the advantages and disadvantages of asexual and sexual reproduction with regard to variation within a population</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>
CONCEPT: GLE / BENCHMARK	LO.3.3.D.9-12.b.	<p>There is heritable variation within every species of organism: Describe how genes can be altered and combined to create genetic variation within a species (e.g., mutation, recombination of genes)</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.D.9-12.c.	<p>There is heritable variation within every species of organism: Recognize that new heritable characteristics can only result from new combinations of existing genes or from mutations of genes in an organism's sex cells</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>
CONCEPT: GLE / BENCHMARK	LO.3.3.E.9-12.a.	<p>The pattern of inheritance for many traits can be predicted by using the principles of Mendelian genetics: Explain how genotypes (heterozygous and homozygous) contribute to phenotypic variation within a species</p> <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>
CONCEPT: GLE / BENCHMARK	LO.3.3.E.9-12.b.	<p>The pattern of inheritance for many traits can be predicted by using the principles of Mendelian genetics: Predict the probability of the occurrence of specific traits, including sex-linked traits, in an offspring by using a monohybrid cross</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>
STRAND: BIG IDEA / STANDARD	MO.EC.4.3.	Changes in Ecosystems and Interactions of Organisms with their Environments: Genetic variation sorted by the natural selection process explains evidence of biological evolution
CONCEPT: GLE / BENCHMARK	EC.4.3.C.9-12.c.	<p>Natural selection is the process of sorting individuals based on their ability to survive and reproduce within their ecosystem: Explain how genetic homogeneity may cause a population to be more susceptible to extinction (e.g., succumbing to a disease for which there is no natural resistance)</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 2 Skill Learning Activity 1: Modeling a DNA Profile</li> </ul>
STRAND: BIG IDEA / STANDARD	MO.ES.5.2.	Processes and Interactions of the Earth's Systems (Geosphere, Atmosphere, and Hydrosphere): Earth's Systems (geosphere, atmosphere, and hydrosphere) interact with one another as they undergo change by common processes
CONCEPT: GLE / BENCHMARK	ES.5.2.B.9-12.d.	<p>There are internal processes and sources of energy within the geosphere that cause changes in Earth's crustal plates: Relate the densities of the materials found in continental and oceanic plates to the processes that result in each type of plate boundary (i.e., diverging, converging, transform)</p> <ul style="list-style-type: none"> <li>Forensic Science: Unit 4 Case Activity 2: The Unusual Fragment</li> <li>Teacher Resource CD: Trace Evidence</li> </ul>
STRAND: BIG	MO.SI.7.1.	Scientific Inquiry: Science understanding is developed through the use of

IDEA / STANDARD		science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking
CONCEPT: GLE / BENCHMARK	SI.7.1.A.9-12.a.	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Formulate testable questions and hypotheses</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 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> </ul>

		<ul style="list-style-type: none"> <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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.b.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Analyzing an experiment, identify the components (i.e., independent variable, dependent variables, control of constants, multiple trials) and explain their importance to the design of a valid experiment</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>• 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 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>

		<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> <li>• Teacher Resource CD: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.c.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Design and conduct a valid experiment</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.f.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Acknowledge there is no fixed procedure called 'the scientific method', but that some investigations involve systematic observations, carefully collected and relevant evidence, logical reasoning, and some imagination in developing hypotheses and other explanations</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 the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood</li> </ul>

		<p>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> <li>• Teacher Resource CD: Analyzing Writing Inks</li> <li>• Teacher Resource CD: Fingerprinting</li> <li>• Teacher Resource CD: Learning About Paper</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.A.9-12.g.</p>	<p>Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation: Evaluate the design of an experiment and make suggestions for reasonable improvements</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.B.9-12.a.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Make qualitative and quantitative observations using the appropriate senses, tools and equipment to gather data (e.g., microscopes, thermometers, analog and digital meters, computers, spring scales, balances, metric rulers, graduated cylinders)</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 the Precipitin Test for the Presence of Human Blood</li> <li>• Forensic Science: Unit 3 Skill Learning Activity 3: Human Blood Group Analysis</li> </ul>

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<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.B.9-12.c.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Determine the appropriate tools and techniques to collect, analyze, and interpret data</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>

- Forensic Science: Unit 1 Skill Learning Activity 3: Practicing Fingerprint Identification Skills
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.B.9-12.d.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Judge whether measurements and computation of quantities are reasonable</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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 3 Case Activity 5: The Telling Trap Door</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.B.9-12.e.</p>	<p>Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations: Calculate the range, average/mean, percent, and ratios for sets of data</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>• 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> </ul>

		<ul style="list-style-type: none"> <li>• Forensic Science: Unit 6 Activity 2: Chromatographic Analysis</li> <li>• Teacher Resource CD: Simulating DNA Analysis</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.C.9-12.a.</p>	<p>Evidence is used to formulate explanations: Use quantitative and qualitative data as support for reasonable explanations (conclusions)</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 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> </ul>

		<ul style="list-style-type: none"> <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>
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.C.9-12.b.</p>	<p>Evidence is used to formulate explanations: Analyze experimental data to determine patterns, relationship, perspectives, and credibility of explanations (e.g., predict/extrapolate data, explain the relationship between the independent and dependent variable)</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</li> </ul>
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		<p>Fingerprints on Smooth Surfaces</p> <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> <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</li> </ul>
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		<p>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>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.C.9-12.c.</p>	<p>Evidence is used to formulate explanations: Identify the possible effects of errors in observations, measurements, and calculations, on the validity and reliability of data and resultant explanations (conclusions)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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>• Forensic Science: Unit 3 Case Activity 5: The Telling Trap Door</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.D.9-12.a.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Analyze whether evidence (data) and scientific principles support proposed explanations (hypotheses, laws, theories)</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
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- Forensic Science: Unit 2 Case Activity 4: The Second Examination
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- 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

		<p>Doggerel</p> <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: Trace Evidence</li> <li>• Virtual Laboratory: ABO-Rh Blood Typing</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.D.9-12.b.</p>	<p>Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings): Evaluate the reasonableness of an explanation (conclusion)</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> </ul>

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- 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: Analyzing Writing Inks
- Teacher Resource CD: Fingerprinting
- Teacher Resource CD: Learning About Paper
- Teacher Resource CD: Simulating DNA Analysis

		<ul style="list-style-type: none"> <li>• Teacher Resource CD: The Case of the Silent Sentinel</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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.E.9-12.a.</p>	<p>The nature of science relies upon communication of results and justification of explanations: Communicate the procedures and results of investigations and explanations through: oral presentations; drawings and maps; data tables (allowing for the recording and analysis of data relevant to the experiment such as independent and dependent variables, multiple trials, beginning and ending times or temperatures, derived quantities); graphs (bar, single, and multiple line); equations and writings</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</li> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</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 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 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> </ul>

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<p>CONCEPT: GLE / BENCHMARK</p>	<p>SI.7.1.E.9-12.b.</p>	<p>The nature of science relies upon communication of results and justification of explanations: Communicate and defend a scientific argument</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> </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 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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CONCEPT: GLE / BENCHMARK	SI.7.1.E.9-12.c.	The nature of science relies upon communication of results and justification of explanations: Explain the importance of the public presentation of scientific
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work and supporting evidence to the scientific community (e.g., work and evidence must be critiqued, reviewed, and validated by peers; needed for subsequent investigations by peers; results can influence the decisions regarding future scientific work)

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- Forensic Science: Unit 1 Case Activity 3: The Paper Mark
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- 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
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<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.1.</b>	<b>Impact of Science, Technology and Human Activity: The nature of technology can advance, and is advanced by, science as it seeks to apply scientific knowledge in ways that meet human needs</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.1.B.9-12.a.</b>	<p>Advances in technology often result in improved data collection and an increase in scientific information: Recognize the relationships linking technology and science (e.g., how technological problems may create a demand for new science knowledge, how new technologies make it possible for scientists to extend research and advance 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> </ul>

- Forensic Science: Unit 1 Skill Learning Activity 4: Latent Fingerprints on Smooth Surfaces
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.1.C.9-12.a.</p>	<p>Technological solutions to problems often have drawbacks as well as benefits: Identify and evaluate the drawbacks (e.g., design constraints, unintended consequences, risks) and benefits of technological solutions to a given problem (e.g., damming a river for flood control, using pesticides to eliminate mosquitoes, genetic engineering of cells, use of satellite communications to gather information)</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
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- Forensic Science: Unit 6 Activity 3: Fingerprint Analysis
- Forensic Science: Unit 6 Activity 4: Document Analysis

		<ul style="list-style-type: none"> <li>Forensic Science: Unit 6 Activity 5: Blood Analysis</li> </ul>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.2.</b>	<b>Impact of Science, Technology and Human Activity: Historical and cultural perspectives of scientific explanations help to improve understanding of the nature of science and how science knowledge and technology evolve over time</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.2.B.9-12.a.</b>	<p>Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Identify and describe how explanations (hypotheses, laws, theories) of scientific phenomena have changed over time as a result of new evidence (e.g., model of the solar system, basic structure of matter, structure of an atom, Theory of Plate Tectonics, Big Bang and nebular theory of the Universe, explanation of electric current)</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Fingerprinting</li> </ul>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.2.B.9-12.b.</b>	<p>Scientific theories are developed based on the body of knowledge that exists at any particular time and must be rigorously questioned and tested for validity: Identify and analyze current theories that are being questioned, and compare them to new theories that have emerged to challenge older ones (e.g., Theory of Evolution, theories of extinction, global warming) (Assess Locally)</p> <ul style="list-style-type: none"> <li>Teacher Resource CD: Fingerprinting</li> </ul>
<b>STRAND: BIG IDEA / STANDARD</b>	<b>MO.ST.8.3.</b>	<b>Impact of Science, Technology and Human Activity: Science and technology affect, and are affected by, society</b>
<b>CONCEPT: GLE / BENCHMARK</b>	<b>ST.8.3.B.9-12.a.</b>	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Analyze the roles of science and society as they interact to determine the direction of scientific and technological progress (e.g., prioritization of and funding for new scientific research and technological development is determined on the basis of individual, political and social values and needs; understanding basic concepts and principles of science and technology influences debate about the economics, policies, politics, and ethics of various scientific and technological challenges )</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> </ul>

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<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.3.B.9-12.b.</p>	<p>Social, political, economic, ethical and environmental factors strongly influence, and are influenced by, the direction of progress of science and technology: Identify and describe major scientific and technological challenges to society and their ramifications for public policy (e.g., global warming, limitations to fossil fuels, genetic engineering of plants, space and/or medical research)</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 2 Case Activity 1: The Questioned Parentage</li> </ul>

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- 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

		<ul style="list-style-type: none"> <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>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.3.C.9-12.c.</p>	<p>Scientific ethics require that scientists must not knowingly subject people or the community to health or property risks without their knowledge and consent: Identify and evaluate the role of models as an ethical alternative to direct experimentation (e.g., using a model for a stream rather than pouring oil in an existing stream when studying the effects of oil pollution)</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 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>
<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST.8.3.D.9-12.a.</p>	<p>Scientific information is presented through a number of credible sources, but is at times influenced in such a way to become non-credible: Evaluate a given source for its scientific credibility (e.g., articles in a new periodical quoting an 'eye witness', a scientist speaking within or outside his/her area of expertise)</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> </ul>

- 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 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
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<p>CONCEPT: GLE / BENCHMARK</p>	<p>ST. 8.3.D.9-12.b.</p>	<p>Scientific information is presented through a number of credible sources, but is at times influenced in such a way to become non-credible: Explain why accurate record-keeping, openness, and replication are essential for maintaining an investigator's credibility with other scientists and society</p> <ul style="list-style-type: none"> <li>• Forensic Science: Unit 1 Case Activity 1: The Solitary Fingerprint</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 3 Case Activity 5: The Telling Trap Door</li> <li>• Forensic Science: Unit 4 Skill Learning Activity 1: Making a Hair and Fiber Collection</li> <li>• Teacher Resource CD: Trace Evidence</li> </ul>