


Grade: 9-12
Course: Forensic Science 2
Year: 2021-2022



| Suggested Pacing | Content Standards | Learning and Performance Expectations What must students know and be able to do? | Assessment of Learning Options How will we know if they learned this skill? | Resources Options | Connection to  |
|----------------------------------|---|---|---|--|--|
| About 3 weeks (Quarter 3) | <p><u>ISTE Standards</u></p> <ol style="list-style-type: none"> Empowered Learner Digital Citizen Knowledge Constructor Creative Communicator <p><u>Ohio's Common Core State Standards - Technology</u></p> <p>6-8.DT.2.a 6-8.DT.2.b 6-8.DT.2.c 6-8.DT.2.d 6-8.DT.2.e 6-8.DT.3.a 6-8.DT.3.b 6-8.DT.3.c 6-8.DT.3.d 6-8.DT.3.e</p> <p><u>Ohio's Common Core State Standards - ELA</u></p> <p>RI.7.1 RI.7.2 RI.7.3 RI.7.4 RI.7.5 RI.7.6</p> | <ul style="list-style-type: none"> Brief understanding of human fetal development and when fingerprints are formed in utero. Differentiate between an arch pattern, loop, and whorl. Go further and identify the specific type of main pattern-regular vs. tented arch, left loop, right loop, double loop, center pocket loop, etc. Be able to use contrast powder to lift a latent fingerprint off of a hard surface. Be able to use cyanoacrylate fumes to lift a fingerprint off of a slippery surface. | <p>Ink Handprint Observation Activity</p> <p>Graphite Fingerprint Exploration Activity</p> <p>Ten Card Ink Fingerprint Lab</p> <p>Contrast Powder Latent Lifting Lab</p> <p>Cyanoacrylate Lifting Lab</p> <p>Fingerprint Test</p> | <p>Bertino and Bertino Chapter 6</p> <p>Saferstein Chapters 12 & 13</p> <p>Saferstein Appendix IV</p> <p>Genge pp. 21-57</p> <p>Dermatoglyphics PowerPoint</p> | <p>Critical and Creative Thinking</p> <p>Collaboration</p> <p>Communication</p> |
| About 5 weeks | <p>W.7.1 W.7.2 W.7.6</p> | <ul style="list-style-type: none"> Sort drugs into categories based on long and short | <p>Drug Presentations</p> | <p>Bertino and Bertino Chapter 9</p> | |

Grade: 9-12
 Course: Forensic Science 2
 Year: 2021-2022



| | | | | | |
|--|---|--|--|--|--|
| <p>(Quarter 3)</p> | <p>W.7.7 W.7.8 W.7.9</p> <p>SL.7.1 SL.7.2 SL.7.3 SL.7.4 SL.7.5 SL.7.6</p> <p>RI.8.1 RI.8.2 RI.8.3</p> <p>W.8.1 W.8.2 W.8.6 W.8.7 W.8.8 W.8.9</p> | <p>term effects on the brain and body.</p> <ul style="list-style-type: none"> Explain the difference between physical dependence and psychological dependence for a variety of prescribed recreational drugs. Explain the monetary and sociological ramifications of rampant drug abuse. Run a variety of presumptive test to determine chemical makeup of an unknown substance | <p>Addiction and the Brain Video and Discussion</p> <p>Unknown Substances Labs 1 & 2</p> <p>Blood and Urinalysis Lab</p> <p>Brine Shrimp Toxicology Lab</p> <p>Toxicology Test</p> | <p>Toxicology PowerPoint</p> | |
| <p>About 4 weeks (Quarters 3 & 4)</p> | <p>SL.8.1 SL.8.2 SL.8.3 SL.8.4 SL.8.5 SL.8.6</p> <p>RI.9-10.1 RI.9-10.2 RI.9-10.3 RI.9-10.8</p> <p>W.9-10.1 W.9-10.2 W.9-10.4 W.9-10.6 W.9-10.7 W.9-10.8</p> <p>SL.9-10.1 SL.9-10.2</p> | <ul style="list-style-type: none"> Differentiate between the five manners of death, and mechanism of death. Be able to apply the correct terminology to a fictional descendent. Explain how the different stages of decomposition help to break down the body. Using a fictional descendent, explain the livor mortis, algor mortis, stomach content, and eye changes that we would expect to see at differing times post mortem. | <p>Bertino and Bertino book activities 11-1, 11-2, & 11-4</p> <p>Of Maggots and Murder Activity</p> <p>Entomology Investigation Lab</p> <p>Decomposition Lab</p> <p>Turkey Carcass Decomposition Study</p> <p>Nature's Witness Lab</p> | <p>Bertino and Bertino Chapter 11</p> <p>Saferstein Chapter 5 & 7</p> <p>Genge pp. 124-134</p> <p>Forensic Entomology PowerPoint</p> | |

Grade: 9-12
Course: Forensic Science 2
Year: 2021-2022



| | | | | | |
|---------------------------------------|---|---|---|--|--|
| | <p>SL.9-10.3 SL.9-10.4 SL.9-10.5 SL.9-10.6</p> <p>RI.11-12.1 RI.11-12.2 RI.11-12.3 RI.11-12.8</p> | <ul style="list-style-type: none"> ● Explain why differentiation insects colonize a body at varying stages of decomposition. ● Use larva to determine post mortem interval. | <p>Decomposition Final Project</p> | | |
| <p>About 2 weeks (Quarter 4)</p> | <p>W.11-12.1 W.11-12.2 W.11-12.4 W.11-12.6 W.11-12.7 W.11-12.8</p> <p>SL.11-12.1 SL.11-12.2 SL.11-12.3 SL.11-12.4 SL.11-12.5 SL.11-12.6</p> <p>Ohio's Common Core State Standards - Science</p> <p>7.PS.1 7.PS.2 7.PS.3 7.PS.4</p> <p>8.PS.1 8.PS.2</p> | <ul style="list-style-type: none"> ● Have a cursory understanding of gun safety. ● Label the parts and use a variety of gun types. ● Compare rifle patterns using a comparison microscope and match projectiles fired from the same weapon. ● Explain how a scientist searches for gunshot residue on a suspect and victim. | <p>Internet Ballistic Matching Activity</p> <p>Comparison of Bullet Casings Lab</p> <p>Firing Pin Matching Activity</p> <p>JFK Assassination Webquest</p> <p>Firearms Identification</p> <p>Shot in the Dark Lab</p> <p>SWAT Guest Speaker</p> <p>Ballistics Test</p> | <p>Bertino and Bertino Chapter 17</p> <p>Saferstein Chapter 9</p> <p>Saferstein Appendix III</p> <p>Genge pp. 102-123 & 195-200</p> <p>Ballistics PowerPoint</p> | |
| <p>About 3 weeks (Quarter 4)</p> | <p>8.LS.1 8.LS.2 8.LS.3</p> <p>PS.M.1 PS.M.2 PS.M.3</p> | <ul style="list-style-type: none"> ● Classify an impression as latent, plastic, or patent. ● Be able to pour a mold to collect a variety of | <p>Bertino and Bertino book activities 15-1, 15-2, 15-3 & 15-5</p> | <p>Bertino and Bertino Chapter 15</p> | |

Grade: 9-12
 Course: Forensic Science 2
 Year: 2021-2022



| | | | | | |
|---|---|--|---|---|--|
| | <p>PS.M.4 PS.M.5</p> <p>PS.EW.1 PS.EW.2 PS.EW.4 PS.EW.5</p> <p>PS.FM.1 PS.FM.2 PS.FM.3</p> <p>B.H.1 B.H.2 B.H.3 B.H.4 B.H.5</p> | <p>impression types.</p> <ul style="list-style-type: none"> Analyze the mold to identify the source of the impression. Use an automobile database to identify a vehicle based on its measured wheelbase and tread width. Measure and match discerning characteristics of a human bite to its source. | <p>Sealed with a Kiss Lab Bite Mark Impression Activity</p> <p>Parking Lot Investigation of Tire Tread Patterns</p> <p>Casting Impressions Questions</p> | <p>Saferstein Chapter 9</p> <p>Saferstein Appendix V</p> <p>Genge pp. 58-73</p> <p>Casts and Impressions PowerPoint</p> | |
| | <p>B.E.1 B.E.2</p> | | | | |
| <p>About 4 weeks (Quarter 4)</p> | <p>B.DI.1</p> <p>B.C.1 B.C.2</p> <p>C.PM.1 C.PM.3 C.PM.4 C.PM.5 C.PM.6</p> <p>C.IM.1 C.IM.2</p> <p>ENV.ES.1 ENV.ES.5</p> <p>ENV.ER.2 ENV.ER.3 ENV.ER.4 ENV.ER.5</p> <p>PG.M.1</p> | <ul style="list-style-type: none"> Use observation skills to evaluate a crime scene and recognize possible sources for DNA that should be collected properly and secured for testing. Explain how to set up an electrophoresis gel. Analyze DNA fingerprints to determine if two sources are a match. | <p>Introduction to Fingerprints Lab</p> <p>DNA Detectives</p> <p>Bertino and Bertino book activities 7-2, 7-4, 7-5, 7-6, & 7-7</p> <p>BCI Guest Speaker</p> <p>DNA Test</p> | <p>Bertino and Bertino Chapter 7</p> <p>Saferstein Chapter 15 & 16</p> <p>Genge pp. 142-158</p> <p>DNA PowerPoint</p> | |

Grade: 9-12

Course: Forensic Science 2

Year: 2021-2022



| | | | | | |
|--|---|--|--|--|--|
| | <p>PG.M.2 PG..M.3 PG.M.4 PG.M.5</p> <p>P.M.2 P.M.3</p> <p>P.F.1 P.F.2 P.F.3 P.F.4 P.F.5 P.F.6 P.F.7</p> <p>P.E.3</p> <p>AP.LO.2 AP.LO.4</p> <p>AP.SM.2</p> <p>AP.T.1</p> <p>AP.AE.1</p> | | | | |
|--|---|--|--|--|--|