

**Elizabethtown Area School District
Scope & Sequence - Quick Reference**



Department: Science

Course: Forensic Chemistry

Grade Level(s): 11 & 12

<i>Unit Title</i>	<i>General Topic(s)</i>	<i>Pacing</i>
1. Evidence	<ul style="list-style-type: none"> ● Sam Science - interpreting evidence - inferring ● Crime Scene Basics ● Eyewitness Basics ● Physical Evidence 	9 blocks
2. Microscope basics	<ul style="list-style-type: none"> ● Taking pictures 5 different ways using different microscopes and Elmo 	2 blocks
3. Fingerprints	<ul style="list-style-type: none"> ● Basics ● Graphite prints ● Inked prints ● Dusted prints ● Chemically lifted prints 	6 - 7- blocks
4. Hair	<ul style="list-style-type: none"> ● Morphology <ul style="list-style-type: none"> ○ Human v animal ● Detailed pictures <ul style="list-style-type: none"> ○ Hair cast ○ Human head hair ○ Human body hair ○ Animal hair 	3 blocks
5. Fiber	<ul style="list-style-type: none"> ● Quick Fiber melting burning lab 	1 block

<p>6. Baseball card caper or Shameful Shahtoosh shawl</p>	<ul style="list-style-type: none"> ● Crime scene case involving 2 fingerprints, hair, and fiber evidence. Interview skills are also used. 	<p>5-7 blocks</p>
<p>7. Blood, blood everywhere, and a drop to ...</p>	<ul style="list-style-type: none"> ● Blood basics ● Is it blood? (H₂O₂) ● Blood typing ● Punnett squares ● Blood spatter (optional) 	<p>3-4 blocks 1-1.5 blocks for spatter</p>
<p>8. Questioned Documents</p>	<ul style="list-style-type: none"> ● Handwriting characteristics - generalities ● Identifying someone's handwriting - quick Harley dognap case ● Paper analysis ● Ink analysis 	<p>4-5 blocks</p>
<p>9. White powder analysis</p>	<ul style="list-style-type: none"> ● Distinguish between 13 different known white solids. ● Identify an unknown white solid 	<p>3 blocks</p>
<p>10. Hanky Panky in the Laundry</p>	<ul style="list-style-type: none"> ● Crime Scene Case involving a fingerprint, three different red substances, hair, handwriting analysis, paper analysis, and ink analysis. 	<p>7 blocks</p>
<p>11. Odontology and Cheiloscopy</p>	<ul style="list-style-type: none"> ● Bitemarks and lip prints analysis - making bitemarks and 	<p>1 -2 blocks</p>
<p>12. Blood and Urine analysis - toxicology</p>	<ul style="list-style-type: none"> ● Simulated blood and urine are analyzed for high levels of certain chemicals associated with various health conditions, e.g. Diabetes, pregnancy, dehydration, etc. 	<p>4 - 5 blocks</p>

	<ul style="list-style-type: none"> ● Unknown blood and urine sample is analyzed to determine health condition 	
13. Anthropology	<ul style="list-style-type: none"> ● Anthropology basics ● Station rotation using anthropological evidence to solve various scenarios. ● Measuring bones to determine height. 	2 - 3 blocks
14. E-town has a drug problem?	<ul style="list-style-type: none"> ● Crime scene case involving a fingerprint, lip print, white powder, hair, ink analysis, handwriting analysis, paper analysis, blood present?, blood type, toxicology of blood and urine. 	10 blocks
15. Masonic Home Mishap (If time)	<ul style="list-style-type: none"> ● Crime scene case involving a fingerprint, lip print on note, white powder, hair, ink analysis, handwriting analysis, paper analysis, blood present?, blood type, toxicology of blood and urine and anthropology 	10 blocks