

Fairview High School Curriculum Map

Subject: Forensic Science

Grade: Junior/Senior

MONTH	Unit	Strand	Core Content	Assessment type	Resources
August	<u>Chapter 1.</u> Introduction to Forensic Science	1. Definition, Scope, Development, & Scope of Forensic Science; History, Organization, & Services of Crime Labs; Functions of Forensic Scientists; Case Studies – Ted Bundy, Coppelino, Jascavich; Frye v. U.S.; Daubert v. Dow Pharm.; Sherlock Holmes Reading & Analyzation;	HS-ETS1-1 HS-ETS1-2	* Quizzes * Written Exam * Labs * Lab Reports * Case Studies * Field Trip Write-Ups * Review Questions * Guest Speaker Write-Ups	* Textbook <i>Chapter 1</i> (pages 2-39) * Various Internet Websites * Supplemental texts
	<u>Chapter 2.</u> The Crime Scene	2. Physical Evidence & the Crime Scene; Securing & Recording the Crime Scene; Case Study – Jon Benet Ramsey; Dealing with Physical Evidence (Proper Collection & Chain of Custody); Death & Autopsies; Forensic Entomology; Entomology Lab; Case Study – John Wayne Gacy; Enrique Camarena Case			* Textbook <i>Chapter 2</i> (pgs. 42-75)
September	<u>Chapter 3.</u> Physical Evidence	1. Common Types of Physical Evidence; Examination & Significance of Physical Evidence; Forensic Databases; Crime Scene Reconstruction; Crime Scene Lab & Report; Case Studies – Wayne Williams Trial; Green River Killer	HS-ETS1-1 HS-ETS1-2	* Quizzes * Written Exam * Labs * Lab Reports * Case Studies * Field Trip Write-Ups * Review Questions * Guest Speaker Write-Ups	* Textbook <i>Chapter 3</i> (pages 76-111) * Various Internet Websites
	<u>Chapter 4</u>	2. Properties of Matter; Theory of			* Supplemental texts

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	Properties of Matter/Analysis of Glass	Light; Physical Properties of Matter (All these are basic review); Forensic Analysis of Glass; Refractive Index; Glass Fractures; Glass Analysis Lab; Case Studies – Roger Severs,		*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write Ups	ental texts *Textbook <i>Chapter 4</i> (pages 113-143)
October	<u>Chapter 5</u> Drugs <u>Chapter 6</u> Forensic Toxicology <u>Chapter 7</u> The Microscope	HS-ETS1-1 HS-ETS1-2	HS-ETS1-1 HS-ETS1-2	*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write-Ups	*Textbook <i>Chapter 5</i> (pages 148-199) *Various Internet Websites *Supplemental texts *Textbook <i>Chapter 6</i> (pgs. 200-235) *Various Internet Websites *Supplemental texts

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					*Textbook <i>Chapter 7</i> (pgs. 236-265)
November	<u>Chapter 8</u> Serology	<p>1. Nature of Blood; Blood Types; Immunoassay Techniques; Forensic Characterization of Bloodstains; Bloodstain Patterns; Case Study – Stephen Scher; Principles of Heredity; Blood Types and Typing; Forensic Characterization of Semen; Collection of Rape Evidence; Forensic Mystery Blood Lab; Blood Spatter Lab;</p>	<p>HS-ETS1-1 HS-ETS1-2</p>	<p>*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write-Ups</p>	<p>*Textbook <i>Chapter 8</i> (pages 266-305) *Various Internet Websites *Supplemental texts</p>
	<u>Chapter 9</u> DNA	<p>2. DNA Review; Replication of DNA; DNA Typing with Tandem Repeats; Polymerase Chain Reaction; Short Tandem Repeats; Mitochondrial DNA; CODIS; Collection & Preservation of Biological Evidence for DNA Analysis; Case Study – Forensic Community's Response to September 11, O.J. Simpson case</p>			<p>*Textbook <i>Chapter 9</i> (pages 306-353) *Various Internet Websites *Supplemental texts</p>

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<p>January</p>	<p><u>Chapter 10</u> Trace Evidence – Hair & Fibers</p> <p><u>Chapter 11</u> Trace Evidence – Metals, Pain, & Soil</p>	<p>1. Forensic Examination of Hair; Forensic Examination of Fibers; Collection & Preservation of Hair & Fiber Evidence; Case Studies – Central Park Jogger, Telltale Rabbit; Hair/Fiber Lab</p> <p>2. Forensic Analysis of Metals; Collection & Preservation of Metals; Forensic Examination of Paint; Collection & Preservation of Paint Evidence; Forensic Analysis of Soil; Collection & Preservation of Soil Evidence; Case Studies – JFK Assassination, Vicki Lynn Hoskinson; The CBS Murders</p>	<p>HS-ETS1-1 HS-ETS1-2</p>	<p>*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write-Ups</p>	<p>*Textbook <i>Chapter 10</i> (pages 354-385) *Various Internet Websites *Supplemental texts</p> <p>*Textbook <i>Chapter 11</i> (pages 386-421) *Various Internet Websites *Supplemental texts</p>
<p>February</p>	<p><u>Chapter 12</u> Fire Investigation</p> <p><u>Chapter 13</u> Explosions</p>	<p>1. Chemistry of Fire; Fire Triangle; Searching Fire Scene; Collection & Preservation of Arson Evidence; Analysis of Flammable Residues; Fire Lab</p> <p>2. Chemistry & Types of Explosions; Collection & Analysis of Evidence of Explosives; Case Study –</p>	<p>HS-ETS1-1 HS-ETS1-2</p>	<p>*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker</p>	<p>*Textbook <i>Chapter 12</i> (pages 422-445) *Various Internet Websites *Supplemental texts</p> <p>*Textbook <i>Chapter 13</i></p>

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		Timothy McVeigh, Crash of TWA Flight 800		Write-Ups	(pages 446-469)
March	<u>Chapter 14</u> Fingerprints	1. History of Fingerprinting; Fundamental Principles of Fingerprints; Classification of Fingerprints; AFIS; Methods of Detecting Fingerprints; Preservation of Developed Prints; Digital Imaging for Fingerprint Enhancement; Fingerprint I.D. Lab, Fuming Fingerprint Lab, Case Study – Richard Ramirez, Mayfield Affair	HS-ETS1-1 HS-ETS1-2	*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write-Ups	*Textbook <i>Chapter 14</i> (pages 470-505) *Various Internet Websites *Supplemental texts
	<u>Chapter 15</u> Firearms, Toolmarks, Impressions	2. Bullett & Cartridge Comparisons; Automated Firearms Search Systems; Gunpowder Residues; Primer Residues on Hands; Serial Number Restoration; Collection & Preservation of Firearms Evidence; Comparison Microscope; Tool Marks; Other Impressions (Casting, Lifting); Case Studies – Beltway Snipers, Sacco & Vanzetti			*Textbook <i>Chapter 15</i> (pages 506-551) *Various Internet Websites *Supplemental texts

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April	<u>Chapter 16</u> Document Examination	Document Examiner; Handwriting Comparisons; Typescript Comparisons; Alterations, Erasures, & Obliterations; Other Document Problems Case Studies – Unabomber, Hitler's Diaries;	HS-ETS1-1 HS-ETS1-2	*Quizzes * Written Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write-Ups	*Textbook <i>Chapter 16</i> (pages 552-577) *Various Internet Websites *Supplemental texts
	<u>Chapter 17</u> Computer Forensics	From Input to Output: How Does Computer Work?; Storing & Retrieving Data; Putting It All Together; Processing Electronic Crime Scene; Analysis of Electronic Data; Case Studies – BTK Killer,			*Textbook <i>Chapter 17</i> (578-609) *Various Internet Websites *Supplemental texts
May	<u>Chapter 18</u> The Internet	1. What is the Internet; World Wide Web; Analysis of Internet Data	HS-ETS1-1 HS-ETS1-2	*Quizzes * Written	*Textbook <i>Chapter 18</i> (pages 610-

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	<p><u>Chapter 19</u> Careers in Forensic Science</p>	<p>2. Disciplines in Forensic Science</p>		Exam *Labs *Lab Reports *Case Studies *Field Trip Write-Ups *Review Questions *Guest Speaker Write-Ups	631) *Various Internet Websites *Supplemen tal texts * <i>Textbook</i> <i>Chapter 19</i> (pages 633- 641) *Various Internet Websites *Supplemen tal texts
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