

## 2022-2023 Themes in Forensic Science - Pacing Guide

Forensic Science is the application of science content and methods in solving crimes. In this course students will explore and answer **some** of the following questions as they learn about key ideas in forensic science:

- What is the science in forensic science? Generally, what are the fundamental principles applied to any investigation where forensic science is involved? Specifically, what are the science principles behind forensic evidence such as fingerprints, blood pattern analysis, dna analysis, footwear and tool mark impression evidence,
- What is the nature (subjective & objective) and limitations of the evidence that scientific tests deliver?
- How is forensic evidence interpreted in order to draw conclusions to solve crimes? How has forensic science enhanced and detracted from solving crimes?

We do not have a reference text for this course. Materials will be provided through Schoology. [ NOTE: Here is a link to *Forensics Illustrated* which is a comprehensive collection of all the resources collected, manufactured, and utilized by Brennon Sapp during his nine years of teaching Forensic Science to high school students. This may be a GREAT source of information to further your own learning: [http://bsapp.com/forensics\\_illustrated/index.html](http://bsapp.com/forensics_illustrated/index.html) ]

Semester	Units	Lab and Class Experiences
1	<b>Basics of Forensic Science:</b> scientific basis of solving crimes - deductive reasoning, crime scene analysis <b>Forensic Evidence I:</b> Writing Samples - Ink & Handwriting; Fingerprints; Blood	<ul style="list-style-type: none"> <li>• Ink Inspection</li> <li>• [ Handwriting Analysis]</li> <li>• Fingerprint Evidence / Analysis</li> <li>• Blood Analysis</li> </ul>
	<b>CASE STUDY 1</b> - Detective's Casebook - Students become great detectives as they test their forensic science skills while investigating and solving a simulated crime! Students conduct four types of forensic tests to solve the case of Bobby Bedhead's missing prize-winning pooch, Priscilla. Tests conducted include blood analysis, chromatographic ink analysis, handwriting analysis and fingerprint analysis.	
	<b>Forensic Evidence II:</b> Fibers; Tracks - Footwear, Stomach Contents	<ul style="list-style-type: none"> <li>• Finding Evidence in Fibers</li> <li>• Footwear Evidence</li> </ul>
	<b>CASE STUDY 2</b> - Mr. Mathematics Mysterious Murder - Matthew Mathematics, the math teacher at Mammals Middle School, was mysteriously murdered on Monday morning. When the body was discovered, the police were called and the crime scene investigation team was sent. Forensic tests include fiber analysis, shoeprints, blood, stomach contents, and fingerprints.	
2 Other Options	<b>Forensic Evidence III:</b> Ballistics, Urine, DNA, Blood Splatter, Hair	<ul style="list-style-type: none"> <li>• Ballistics</li> <li>• Urine (and Blood Analysis) Laboratory Kit</li> <li>• Blood Spatter - Bloodstain Pattern Analysis Laboratory Kit</li> <li>• DNA Verification</li> </ul>
	<b>Forensic Evidence IV:</b> Insects (Entomology), Time of Death, Bones, Teeth / Bite Marks	<ul style="list-style-type: none"> <li>• Of Maggots and Murder - Forensic Entomology Laboratory Kit</li> </ul>
	Other Possible Topics: Toxicology, Wildlife Forensics, Arson	
	CASE STUDY 3 - tbd - student generated	
<p><b>Notes:</b> The thematic units are subject to change. This document will be updated periodically and posted through the specific course listing in Schoology. If you have questions, comments, or concerns, please contact Ms. Sandy (<a href="mailto:sjsmith@d49.org">sjsmith@d49.org</a>)</p>		

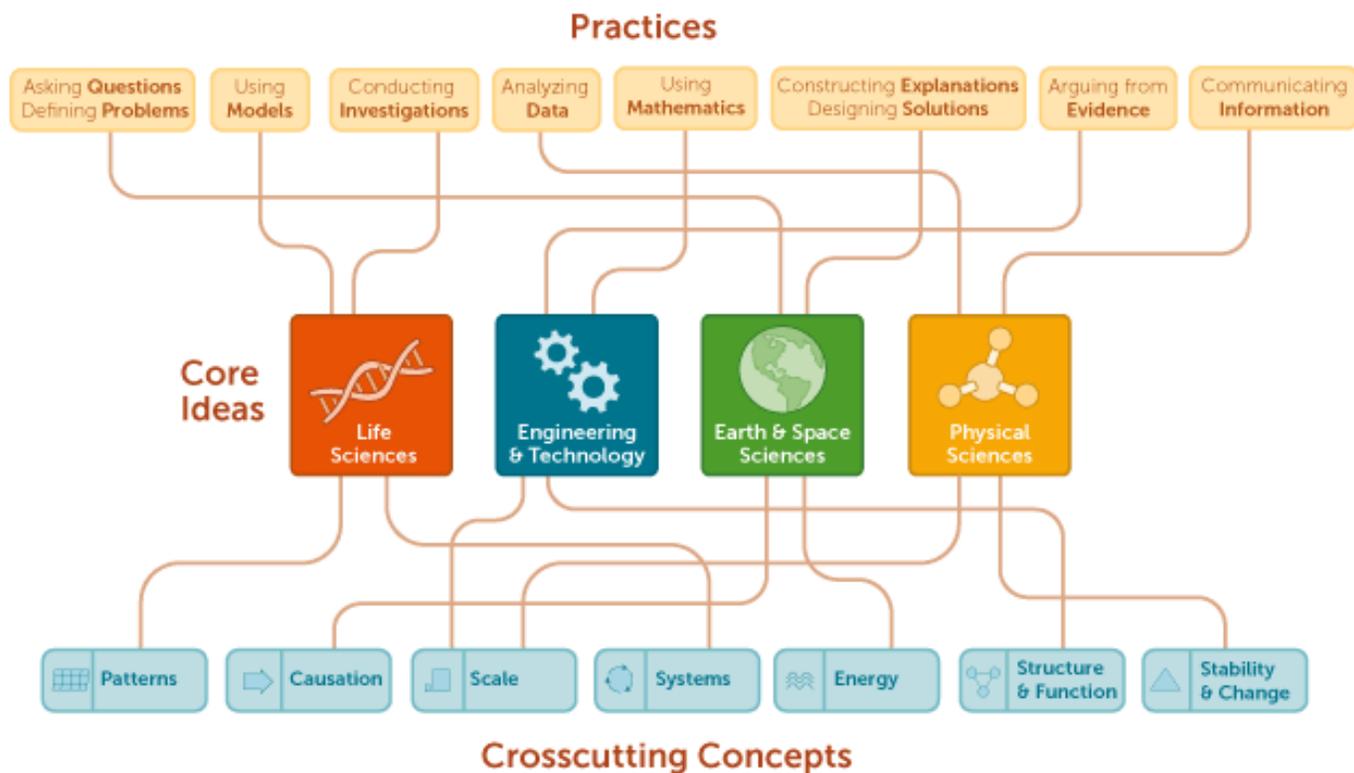
More information on the other side of this page...

## FHAP - Themes in Science Courses

Most FHAP Themes in Science classes are delivered once per week (Thursday) in a thematic unit-studies format. During class, students will have the opportunity to explore and discover science in an active, collaborative and creative way. In addition to the classroom activities, students are expected to complete related homework assignments due at 8 am on the day of each science class - or at the beginning of science class. Because of the limited time designated to learning via this FHAP science class, parents are encouraged to expand upon their learning\* while at home (beyond the home assignments) in order to consider these courses as full year studies and assign a credit to the transcript.

[\*Connections to the course text are provided on the pacing guide as a possible resource.]

The content of all FHAP science courses will be drawn from key ideas in science that have broad importance within or across multiple science disciplines, including Physical Science, Life science, and Earth and Space Science. In addition to the science content, the science classes will integrate crosscutting science principles as opportunities arise. Students will engage in science practices to build, deepen, and apply their knowledge of key ideas and crosscutting concepts.



*More information on the other side of this page...*