

Forensic Science Objectives

Human Rights The student will be able to:	State Standard*
1. define human rights.	12.7.6 12.8.1
2. cite specific examples from national and international violations of human rights.	12.7.6 12.8.1

Event Scene Protocol The student will be able to:	State Standard*
1. understand proper event scene protocol which may include knowledge of the following: <ul style="list-style-type: none"> • documentation of evidence • maintaining a chain of evidence 	12.1.1 12.1.2
2. organize and prepare an event site.	12.1.1 12.1.2
3. present scientific evidence to support a hypothesis about an event scene.	12.1.1 12.1.2

Biology The student will be able to:	State Standard*
1. recognize basic bone morphology – human and animal.	12.1.4
2. determine pre- and post-mortem distinguishing features of skeletonized remains which may include the following: <ul style="list-style-type: none"> • gender characteristics • racial identifiers • disease pathology • tool marks 	
3. discuss soft tissue anatomy and serology.	12.1.4
4. identify scavenger insects and their life cycles.	
5. understand the role of insect succession in the history of an event.	12.1.5 12.3.5 12.4.4 12.4.6
6. understand the role of pollen identification in event reconstruction.	
7. understand the role of plant growth in event reconstruction.	12.1.5
8. understand the role of DNA fingerprinting.	

Physical Science The student will be able to:	State Standard*
Hair analysis 1. discriminate between human and animal hairs.	12.4.2
2. distinguish between naturally shed and other hairs.	
Fiber analysis 3. understand different fiber structures.	
Fingerprint analysis 4. understand the classification, ridge structure, patterns, and recovery techniques of fingerprints.	

Glass fragment analysis 5. discriminate between window and safety glass and discern between patterns of breakage.	
Toxicology 8. identify unknown substances including volatile compounds, organic acids and organic bases.	12.3.2 12.3.3
9. practice separation and replication techniques in order to identify unknown sources which may include the following: <ul style="list-style-type: none"> • chromatography • gel electrophoresis • PCR (polymerase chain reaction) 	12.1.3 12.3.3 12.4.2
10. analyze organic and inorganic evidence which may include the following: <ul style="list-style-type: none"> • spectrophotometry • mass spectrometry • emission spectrum of elements 	12.3.1 12.3.6

*The following state science standards (12.2.1, 12.6.2, 12.7.5, 12.8.3) are addressed by every objective and are not listed in the table.