TEKS ALIGNMENT, SUGGESTED PACING GUIDE & MATERIALS LIST

Forensic Science



iCEV Law, Public Safety, Corrections & Security Site

Meets 100% of TEKS

Suggested Pacing Guide

Less	esson Title TEKS		
	English Applications	All English Language Proficiency Standards	11
2	Professionalism in the Sciences: Forensic Science	1.A.i; 1.A.ii	8
3	STEM Careers: Forensic Science	5.C.i; 5.C.ii; 8.A.i; 8.A.ii; 8.A.iii; 8.A.iv; 8.A.v; 8.A.vi; 8.A.vii; 8.A.viii; 8.A.ix; 8.A.x; 8.B.i	5
4	Science Explained: Forensic Science	2.H.i; 5.A.i; 5.A.ii; 5.A.iii; 5.A.iv; 5.A.v; 5.A.vi; 5.A.vii; 5.A.viii; 5.A.ix; 5.A.x; 5.A.xi; 5.A.x	4
5	Impact of Science: Forensic Science	5.B.i; 5.B.ii; 5.B.ii; 5.B.v; 5.B.v; 5.B.vi; 5.B.vii; 5.B.vii; 5.B.ix; 5.B.x; 5.B.xi; 5.B.xii; 5.B.xii; 5.B.xiv; 5.B.xv; 5.B.x	6
6	Ethics in Forensic Science	1.A.ii; 7.A.i; 7.B.ii; 7.B.iv; 7.C.i; 7.C.ii; 7.C.ii; 7.C.iv; 7.D.i; 7.D.ii; 7.D.iii; 7.D.iv; 7.D.v; 7.D.v; 7.E.i	6
7	History & Evolution of Forensic Science	6.A.i; 6.A.ii; 6.B.i; 6.B;ii; 6.B.iii; 6.B.iv; 7.E.i	4
8	Tools in Forensic Science	2.D.i; 2.D.ii	6
9	Conducting Lab & Field Investigations: Forensic Science	2.A.i; 2.A.ii; 2.B.i; 2.B.ii; 2.B.iii; 2.B.iv; 2.B.v; 2.B.vi; 2.B.vii; 2.C.iv; 2.C.v; 2.C.vi; 2.E.i; 2.E.ii; 2.E.ii; 2.E.iv; 2.E.;	5
10	Developing a Model: Forensic Science	2.G.i; 2.G.ii; 3.A.i; 2.A.ii	3
	Analyzing Data: Forensic Science	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 3.C.i	3
	Experimental Design: Forensic Science	3.D.i; 3.D.ii	4
	Communicating Findings in Forensic Science	4.A.i; 4.A.ii; 4.A.ii; 4.A.iv; 4.A.v; 4.A.vi; 4.A.vii; 4.A.iii; 4.A.ix; 4.A.x; 4.A.xi; 4.A.xii; 4.B.i; 4.B.i; 4.B.ii; 4.B.iv; 4.B.v; 4.B.vi; 4.B.vii; 4.B.vii; 4.C.i; 4.C.ii	3
14	Forensic Science Safety & Regulations	2.C.i; 2.C.ii; 2.C.iii; 2.C.iv; 2.C.v; 2.C.vi	5
	Technical Writing in Forensic Science	9.B.i; 9.B.ii	3
	Evidence Collection: Laws & Regulation	7.B.i; 7.B.ii; 7.B.iii; 7.B.iv; 9.A.i; 9.A.ii; 9.A.iii; 9.C.i; 9.C.ii; 9.C.iii	6
	Evidence Collection: Procedures	9.A.ii; 9.D.i; 9.D.ii; 9.G.i; 9.G.ii; 9.G.iii; 12.A.i; 12.A.ii; 13.A.i; 13.A.ii; 17.D.i; 19.A.i; 19.A.ii; 19.A.ii; 21.C.i; 21.C.ii	7
18	Serology, Blood & Bodily Fluids	8.C.i; 18.C.i; 19.B.i; 19.B.ii	6
19	Ballistics	8.C.i; 15.A.i; 15.B.i; 15.B.ii; 15.B.iii; 15.B.iv; 15.C.i; 15.C.ii; 15.C.iii; 15.C.iv; 15.D.i; 15.D.ii; 15.E.i; 15.E.ii	7
20	Blood Spatter	2.E.i; 2.E.ii; 2.E.iv; 18.A.i; 18.A.i; 18.B.i	7
	Toxicology & Controlled Substances	16.A.i; 16.A.ii; 16.B.i; 16.C.i; 16.C.ii; 17.A.i; 17.A.ii; 17.A.iii; 17.A.iv; 17.B.i; 17.B.ii; 17.C.i; 17.C.ii; 17.C.iii; 17.C.iv	8
22	Crime Scene Reports	9.A.i; 9.A.ii; 9.B.i; 9.B.i;	4
	Crime Scene Sketching	9.F.i; 9.F.ii; 9.F.iv; 9.F.v; 9.F.vi	3
	DNA Analysis	19.C.i; 19.C.ii; 19.D.i; 19.D.ii; 19.D.iiv; 19.E.i; 19.F.i; 19.G.i	10
	Tool Mark Analysis	11.A.i; 11.A.ii; 11.A.iii; 11.A.iv; 11.B.i; 11.B.ii; 11.B.iii; 11.B.iv; 11.C.i; 11.C.ii; 11.D.i	5
26	Fingerprint & Impression Analysis	8.C.i; 10.A.i; 10.B.i; 10.B.ii; 10.B.ii; 10.B.iv; 10.B.v; 10.C.i; 10.D.i; 10.D.ii; 10.D.iii; 10.D.iv; 10.E.i; 10.E.ii; 10.E.ii; 10.F.i; 10.F.ii	6
27	Trace Evidence: Glass & Paint	13.B.i; 13.C.i; 13.D.i; 13.D.ii	7
28	Trace Evidence: Hair & Fiber	8.C.i; 12.B.i; 12.B.ii; 12.C.i; 12.C.ii; 12.C.iii; 12.D.i; 12.D.ii; 12.E.i	11
29	Document Analysis: Forgery & Counterfeiting	14.B.i; 14.B.ii; 14.B.ii; 14.B.iv	5
30	Document Analysis: Handwriting	14.C.i	3
	Document Analysis: Materials	14.A.ii; 14.A.iv	6
	Digital Forensics	8.C.i; 14.A.ii	5
	Crime Scene Photography	9.E.i	5
	Forensic Anthropology & Odontology	21.A.i; 21.B.i; 21.B.ii; 21.D.i; 21.D.ii; 21.D.iii.21.E.i	8
	Decomposition Analysis	20.A.i; 20.A.ii; 20.A.ii; 20.A.iv; 20.A.v; 20.A.v; 20.D.i	5

Suggested Pacing Guide

Less	on Title	TEKS	Days of Teaching*
36	Death Investigations	20.B.i; 20.C.i; 20.C.ii	4
37	Autopsy Process	20.C.i; 20.C.ii	5
38	Forensic Entomology	20.D.i	6

^{*} Days of Teaching identifies the number of days a lesson may take if all lesson plan items (i.e., activities, projects, handouts, etc.) are utilized as written by iCEV curriculum writers. Flexibility within the lesson plan allows instructor autonomy of implementation for each item.

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
English Applications		All English Language Proficiency Standards	
Professionalism in the	(1) The Student demonstrates professional	(A) demonstrate professional standards/employability skills such as	(i) demonstrate professional standards
Sciences: Forensic	standards/employability skills as required by	demonstrating good attendance, punctuality, and ethical conduct; meeting	(ii) daman atauta amala aliifa ahiila
Science	business and industry. The Student is expected	deadlines, and working toward personal and team goals.	(ii) demonstrate employability skills
Colcilia	(5) The Student knows the contributions of	(C) research and explore resources such as museums, libraries,	(i) research resources
	scientists and engineers and recognizes the	professional organizations, private companies, online platforms, and	(ii) explore resources
	(8) The Student explores career options within forensic science. The Student is expected to	(A) explore and describe discipline-specific requirements for careers in forensic science, including collegiate course requirements, licensure, certifications, and physical and mental capabilities	(i) explore discipline-specific requirements for careers in forensic science, including collegiate course requirements (ii) explore discipline-specific requirements for careers in forensic science, including licensure
			(iii) explore discipline-specific requirements for careers in forensic science, including certifications
			(iv) explore discipline-specific requirements for careers in forensic science, including physical capabilities
			(v) explore discipline-specific requirements for careers in forensic science, including mental capabilities
STEM Careers: Forensic Science			(vi) describe discipline-specific requirements for careers in forensic science, including collegiate course requirements
			(vii) describe discipline-specific requirements for careers in forensic science, including licensure
			(viii) describe discipline-specific requirements for careers in forensic science, including certifications
			(ix) describe discipline-specific requirements for careers in forensic science, including physical capabilities
			(x) describe discipline-specific requirements for careers in forensic science, including mental capabilities
		(B) differentiate the roles and responsibilities of professionals in the criminal justice system, including forensic scientists, crime scene investigators, criminologists, court systems personnel, and medicolegal death investigations	(i) differentiate the roles and responsibilities of professionals in the criminal justice system, including forensic scientists, crime scene investigators, criminologists, court systems personnel, and medicolegal death investigations
Science Explained: Forensic Science	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(H) distinguish between scientific hypotheses, theories, and laws	(i) distinguish between scientific hypotheses, theories, and laws
Forensic Science	(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(i) analyze scientific explanations by using empirical evidence so as to encourage critical thinking by the Student (ii) analyze scientific explanations by using logical
	·		reasoning so as to encourage critical thinking by the Student

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
Science Explained: Forensic Science	Knowledge & Skill Statement (5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	Student Expectation (A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(iii) analyze scientific explanations by using experimental testing so as to encourage critical thinking by the Student (iv) analyze scientific explanations by using observational testing so as to encourage critical thinking by the Student (v) evaluate scientific explanations by using empirical evidence so as to encourage critical thinking by the Student (vi) evaluate scientific explanations by using logical reasoning so as to encourage critical thinking by the Student (vii) evaluate scientific explanations by using experimental testing so as to encourage critical thinking by the Student (viii) evaluate scientific explanations by using experimental testing so as to encourage critical thinking by the Student (viii) evaluate scientific explanations by using experimental testing so as to encourage critical thinking by the Student (ix) critique scientific explanations by using empirical evidence so as to encourage critical thinking by the Student (xi) critique scientific explanations by using logical reasoning so as to encourage critical thinking by the Student (xii) critique scientific explanations by using experimental testing so as to encourage critical thinking by the Student (xii) critique scientific explanations by using observational testing so as to encourage critical
Impact of Science: Forensic Science	(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	thinking by the Student (i) relate the impact of past research on scientific thought, including research methodology (ii) relate the impact of past research on scientific thought, including cost-benefit analysis (iii) relate the impact of past research on scientific thought, including contributions of diverse scientists as related to the content (iv) relate the impact of past research on scientific thought, including contributions of diverse engineers as related to the content (v) relate the impact of past research on society, including research methodology (vi) relate the impact of past research on society, including cost-benefit analysis (vii) relate the impact of past research on society, including contributions of diverse scientists as related to the content (viii) relate the impact of past research on society, including contributions of diverse engineers as related to the content (viii) relate the impact of past research on society, including contributions of diverse engineers as related to the content (ix) relate the impact of current research on scientific thought, including research methodology

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
Impact of Science: Forensic Science	(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(x) relate the impact of current research on scientific thought, including cost-benefit analysis (xi) relate the impact of current research on scientific thought, including contributions of diverse scientists as related to the content (xii) relate the impact of current research on scientific thought, including contributions of diverse engineers as related to the content (xiii) relate the impact of current research on society, including research methodology (xiv) relate the impact of current research on society, including cost-benefit analysis (xv) relate the impact of current research on society, including contributions of diverse scientists as related to the content; and (xvi) relate the impact of current research on society, including contributions of diverse engineers as related to the content; and
	(1) The Student demonstrates professional standards/employability skills as required by business and industry. The Student is expected to (7) The Student analyzes legal aspects within	(A) demonstrate professional standards/employability skills such as demonstrating good attendance, punctuality, and ethical conduct; meeting deadlines, and working toward personal and team goals. (A) summarize the ethical standards required of a forensic science	(ii) demonstrate employability skills (ii) summarize the ethical standards required of a
	forensic science. The Student is expected to	professional (B) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	forensic science professional (ii) identify procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence (iv) explain knowledge of procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence
Ethics in Forensic Science		(C) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to expert witness testimony	(i) identify terminology employed in the criminal justice system as [it pertains] to expert witness testimony (ii) identify procedures employed in the criminal justice system as they pertain to expert witness testimony (iii) explain knowledge of terminology employed in the criminal justice system as [it pertains] to expert witness testimony (iv) explain knowledge of procedures employed in the criminal justice system as they pertain to expert witness testimony
		(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(i) research the effect of biases on evidence collection (ii) research the effect of biases on forensic analysis (iii) research the effect of biases on expert testimony (iv) discuss the effect of biases on evidence collection (v) discuss the effect of biases on forensic analysis (vi) discuss the effect of biases on expert testimony

Forensic Science		~	
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
Ethics in Forensic Science	(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(E) compare the admissibility of expert witness testimony in terms of the Frye Standard and the Daubert Standard under federal rules of evidence.	(i) compare the admissibility of expert witness testimony in terms of the Frye Standard and the Daubert Standard under federal rules of evidence.
History & Evolution in Forensic Science	(6) The Student explores the history of forensic science. The Student is expected to	(A) analyze the historical development and current advancements of different forensic science disciplines such as forensic biology, anthropology/odontology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents (B) explain significant historical and modern contributions to the development and advancement of forensic science made by contributors such as Edmond Locard, Mathieu Orfila, Francis Galton, Edwin Henry, and Alec Jeffreys.	(i) analyze the historical development of different forensic science disciplines (ii) analyze the current advancements of different forensic science disciplines (i) explain significant historical contributions to the development of forensic science made by contributors (ii) explain significant historical contributions to the advancement of forensic science made by contributors (iii) explain significant modern contributions to the development of forensic science made by contributors (iv) explain significant modern contributions to the advancement of forensic science made by contributors
	(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(E) compare the admissibility of expert witness testimony in terms of the Frye Standard and the Daubert Standard under federal rules of evidence.	(i) compare the admissibility of expert witness testimony in terms of the Frye Standard and the Daubert Standard under federal rules of evidence.
Tools in Forensic Science	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(D) use appropriate tools and equipment such as scientific calculators, computers, internet access, digital cameras, video recording devices, meter sticks, metric rulers, measuring tapes, digital range finders, protractors, calipers, light microscopes up to 100x magnification, hand lenses, stereoscopes, digital scales, dissection equipment, standard laboratory glassware, appropriate personal protective equipment (PPE), an adequate supply of consumable chemicals, biological specimens, prepared evidence slides and samples, evidence packaging and tamper evident tape, evidence tents, crime scene tape, L-rulers, American Board of Forensic Odontology (ABFO) scales, alternate light sources (ALS) and ALS protective goggles, blood specimens, blood presumptive tests, glass samples of various chemical composition, human and non-human bones, fingerprint brushes and powders, lifting tapes and cards, ten-print cards and ink pads, swabs with containers, disposable gloves, and relevant and necessary kits	(ii) use appropriate tools (ii) use appropriate equipment
Conducting Lab & Field	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is	(A) ask questions and define problems based on observations or information from text, phenomena, models, or investigations	(i) ask questions based on observations or information from text, phenomena, models, or investigations (ii) define problems based on observations or information from text, phenomena, models, or investigations
Investigations: Forensic Science	expected to	(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems	(i) apply scientific practices to plan descriptive investigations (ii) apply scientific practices to plan comparative investigations (iii) apply scientific practices to plan experimental investigations (iv) apply scientific practices to conduct descriptive investigations

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and	(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems	(v) apply scientific practices to conduct comparative investigations (vi) apply scientific practices to conduct experimental investigations (vii) use engineering practices to design solutions to problems
Conducting Lab & Field Investigations: Forensic	expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(iv) use appropriate safety practices during laboratory investigations as outlined in Texas Education Agency approved safety standards (v) use appropriate safety practices during classroom investigations as outlined in Texas Education Agency approved safety standards (vi) use appropriate safety practices during field investigations as outlined in Texas Education Agency approved safety standards
Science		(E) collect quantitative data with accuracy and precision using the International System of Units (SI) and United States customary units and qualitative data as evidence	(i) collect quantitative data with accuracy using the International System of Units (SI) (ii) collect quantitative data with precision using the International System of Units (SI) (iii) collect quantitative data with accuracy using United States customary units (iv) collect quantitative data with precision using United States customary units (v) collect qualitative data as evidence
		(F) organize quantitative and qualitative data using appropriate methods of communication such as reports, graphs, tables, or charts	(i) organize quantitative data using appropriate methods of communication (ii) organize qualitative data using appropriate methods of communication
Developing a Model:	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(G) develop and use models to represent phenomena, systems, processes, or solutions to engineering problems	(i) develop models to represent phenomena, systems, processes, or solutions to engineering problems (ii) use models to represent phenomena, systems, processes, or solutions to engineering problems
Forensic Science	(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(A) identify advantages and limitations of models such as their size, scale, properties, and materials	(i) identify advantages of models (ii) identify limitations of models
Analyzing Data: Forensic Science	(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(B) analyze data by identifying significant statistical features, patterns, sources of error, and limitations	(i) analyze data by identifying significant statistical features (ii) analyze data by identifying patterns (iii) analyze data by identifying sources of error (iv) analyze data by identifying limitations
		(C) use mathematical calculations to assess quantitative relationships in data	(i) use mathematical calculations to assess quantitative relationships in data
Experimental Design: Forensic Science	(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(D) evaluate experimental and engineering designs.	(i) evaluate experimental designs (ii) evaluate engineering designs

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
Communicating Findings in Forensic Science	Knowledge & Skill Statement (4) The Student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The Student is expected to	Student Expectation (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats	(ii) develop explanations supported by data and consistent with scientific ideas (iii) develop explanations supported by data and consistent with scientific principles (iii) develop explanations supported by data and consistent with scientific theories (iv) develop explanations supported by models and consistent with scientific ideas (v) develop explanations supported by models and consistent with scientific principles (vi) develop explanations supported by models and consistent with scientific principles (vi) develop explanations supported by models and consistent with scientific theories (vii) propose solutions supported by data and consistent with scientific ideas (viii) propose solutions supported by data and consistent with scientific principles (ix) propose solutions supported by models and consistent with scientific theories (x) propose solutions supported by models and consistent with scientific ideas (xii) propose solutions supported by models and consistent with scientific theories (xii) propose solutions supported by models and consistent with scientific theories (xii) propose solutions supported by models and consistent with scientific theories (iii) communicate explanations individually in a variety of formats (iv) communicate explanations collaboratively in a variety of settings (iv) communicate solutions individually in a variety of formats (v) communicate solutions individually in a variety of settings (vii) communicate solutions collaboratively in a variety of settings (viii) communicate solutions collaboratively in a variety of settings (viii) communicate solutions collaboratively in a variety of settings (viii) communicate solutions collaboratively in a variety of settings
		(C) engage respectfully in scientific argumentation using applied scientific explanations and empirical evidence.	variety of formats (i) engage respectfully in scientific argumentation using applied scientific explanations (ii) engage respectfully in scientific argumentation
Forensic Science Safety & Regulations	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	using empirical evidence (i) use appropriate safety equipment during laboratory investigations as outlined in Texas Education Agency approved safety standards (ii) use appropriate safety equipment during classroom investigations as outlined in Texas Education Agency approved safety standards (iii) use appropriate safety equipment during field investigations as outlined in Texas Education Agency approved safety standards

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
Forensic Science Safety & Regulations	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(iv) use appropriate safety practices during laboratory investigations as outlined in Texas Education Agency approved safety standards (v) use appropriate safety practices during classroom investigations as outlined in Texas Education Agency approved safety standards (vi) use appropriate safety practices during field investigations as outlined in Texas Education Agency approved safety standards
Technical Writing in Forensic Science	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(B) develop a detailed, technical written record based on observations and activities, documenting the crime scene examination	(i) develop a detailed, technical written record based on observations, documenting the crime scene examination (ii) develop a detailed, technical written record based on activities, documenting the crime scene examination
	(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(B) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	(i) identify terminology in the criminal justice system as [it pertains] to the chain of custody procedure for evidence (ii) identify procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence (iii) explain knowledge of terminology employed in the criminal justice system as [it pertains] to the chain of custody procedure for evidence (iv) explain knowledge of procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence
Evidence Collection: Laws & Regulations	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(A) explain the roles and tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies, and demonstrate the ability to work as a member of a crime scene team (C) discuss the elements of criminal law that guide search and seizure of	(i) explain the roles needed to complete a crime scene examination, which may require collaboration with outside experts and agencies (ii) explain the tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies (iii) demonstrate the ability to work as a member of a crime scene team (i) discuss the elements of criminal law that guide
		persons, property, and evidence	(ii) discuss the elements of criminal law that guide search and seizure of persons (iii) discuss the elements of criminal law that guide search and seizure of property (iii) discuss the elements of criminal law that guide search and seizure of evidence
Evidence Collection: Procedures	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(A) explain the roles and tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies, and demonstrate the ability to work as a member of a crime scene team (D) conduct a primary and secondary systematic search of a simulated crime scene for physical evidence utilizing search patterns such as spiral, line, grid, and zone	(ii) explain the tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies (i) conduct a primary systematic search of a simulated crime scene for physical evidence utilizing search patterns (ii) conduct a secondary systematic search of a simulated crime scene for physical evidence utilizing search patterns

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(G) demonstrate proper techniques for collecting, packaging, and preserving physical evidence found at a crime scene while maintaining documentation, including chain of custody.	(i) demonstrate proper techniques for collecting physical evidence found at a crime scene while maintaining documentation, including chain of custody. (ii) demonstrate proper techniques for packaging physical evidence found at a crime scene while maintaining documentation, including chain of custody. (iii) demonstrate proper techniques for preserving physical evidence found at a crime scene while maintaining documentation, including chain of custody
Evidence Collection:	(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(A) demonstrate how to collect hair and fiber evidence at a simulated crime scene	(i) demonstrate how to collect hair evidence at a simulated crime scene (ii) demonstrate how to collect fiber evidence at a simulated crime scene
Procedures	(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(A) demonstrate how to collect and preserve glass evidence	(i) demonstrate how to collect glass evidence (ii) demonstrate how to preserve glass evidence
	(17) The Student explores toxicology in forensic science. The Student is expected to	(D) explain the precautions necessary in the forensic laboratory for proper preservation of biological samples.	(i) explain the precautions necessary in the forensic laboratory for proper preservation of biological samples
	(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(A) identify different types of biological samples and practice proper collection and preservation techniques	(i) identify different types of biological samples (ii) practice proper collection techniques [of biological samples] (iii) practice proper preservation techniques [of biological samples]
	(21) The Student explores principles of anthropology and odontology relevant to forensic science. The Student is expected to	(C) describe the collection and preservation methods for bone evidence;	(i) describe the collection methods for bone evidence (ii) describe the preservation methods for bone evidence
	(8) The Student explores career options within forensic science. The Student is expected to	(C) differentiate the functions of various forensic science disciplines such as forensic biology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents.	(i) differentiate the functions of various forensic science disciplines
Serology, Blood &	(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to	(C) conduct and interpret blood presumptive tests for various biologicals such as phenolphthalein and tetramethylbenzidine (TMB).	(i) conduct blood presumptive tests for various biologicals (ii) interpret blood presumptive tests for various
Bodily Fluids	(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(B) identify the red blood cell antigens and antibodies as they relate to human blood types	biologicals (i) identify the red blood cell antigens as they relate to human blood types (ii) identify the red blood cell antibodies as they relate to human blood types
	(8) The Student explores career options within forensic science. The Student is expected to	(C) differentiate the functions of various forensic science disciplines such as forensic biology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents.	(i) differentiate the functions of various forensic science disciplines
Ballistics	(15) The Student evaluates firearms and ballistics evidence. The Student is expected to	(A) describe the mechanism of modern firearms such as long guns and handguns (B) identify the components and characteristics of bullet and cartridge cases	(i) identify the components of bullet cases (ii) identify the components of cartridge cases (iii) identify the characteristics of bullet cases (iv) identify the characteristics of cartridge cases

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
	(15) The Student evaluates firearms and ballistics evidence. The Student is expected to	(C) describe the composition of and method of analysis for gunshot residue and primer residue	(i) describe the composition of gunshot residue (ii) describe the composition of primer residue (iii) describe the method of analysis for gunshot residue (iv) describe the method of analysis for primer
Ballistics		(D) conduct and calculate trajectory analysis of bullet strikes within a simulated crime scene	residue (i) conduct trajectory analysis of bullet strikes within a simulated crime scene (ii) calculate trajectory analysis of bullet strikes within a simulated crime scene
		(E) identify and recognize the type of information available through the National Integrated Ballistics Information Network.	(i) identify the type of information available through the National Integrated Ballistics Information Network. (ii) recognize the type of information available
			through the National Integrated Ballistics Information Network.
	(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(E) collect quantitative data with accuracy and precision using the International System of Units (SI) and United States customary units and qualitative data as evidence	(i) collect quantitative data with accuracy using the International System of Units (SI) (ii) collect quantitative data with precision using the International System of Units (SI) (iii) collect quantitative data with accuracy using United States customary units (iv) collect quantitative data with precision using United States customary units
Blood Spatter	(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to	(A) analyze blood stain patterns based on surface type and appearance such as size, shape, distribution and location in order to determine the mechanism by which the patterns are created	(ii) analyze blood stain patterns based on surface type in order to determine the mechanism by which the patterns are created (ii) analyze blood stain patterns based on appearance in order to determine the mechanism by which the patterns are created
		(B) explain the methods of chemically enhancing latent blood patterns using reagents such as Blue Star or Amido Black	(i) explain the methods of chemically enhancing latent blood patterns using reagents
	(16) The Student identifies controlled and illicit substances. The Student is expected to	(A) differentiate between toxicological analysis and controlled substance analysis as they relate to the method of collection and impact on the body	(i) differentiate between toxicological analysis and controlled substance analysis as they relate to the method of collection (ii) differentiate between toxicological analysis and controlled substance analysis as they relate to the impact on the body
Toxicology & Controlled Substances		(B) classify controlled substances using the schedules under the Controlled Substances Act (C) identify unknown substances using presumptive and confirmatory procedures such as microchemical/color indicating reagent field tests, microscopy, chromatography, and spectrophotometry.	(i) classify controlled substances using the schedules under the Controlled Substances Act (i) identify unknown substances using presumptive procedures (ii) identify unknown substances using confirmatory
	(17) The Student explores toxicology in forensic science. The Student is expected to	(A) explain the absorption, distribution, metabolization, and elimination of toxins such as alcohol, prescription drugs, controlled substances, and carbon monoxide through the human body	procedures (i) explain the absorption of toxins through the human body (ii) explain the distribution of toxins through the human body (iii) explain the metabolization of toxins through the human body (iv) explain the elimination of toxins through the
			human body

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
	(17) The Student explores toxicology in forensic science. The Student is expected to	(B) describe presumptive and confirmatory laboratory procedures as they relate to toxicological analysis such as head space analysis, solid-phase extractions, gas chromatography-mass spectrometry (GC/MS), color tests, and immunoassays	(i) describe presumptive laboratory procedures as they relate to toxicological analysis (ii) describe confirmatory laboratory procedures as they relate to toxicological analysis
Toxicology & Controlled Substances		(C) interpret results from presumptive and confirmatory laboratory procedures, including GC/MS and their implications	(i) interpret results from presumptive laboratory procedures, including GC/MS (ii) interpret results from presumptive laboratory procedures, including [the results'] implications (iii) interpret results from confirmatory laboratory procedures, including GC/MS (iv) interpret results from confirmatory laboratory procedures, including [the results'] implications
Crime Scene Reports	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(A) explain the roles and tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies, and demonstrate the ability to work as a member of a crime scene team	(i) explain the roles needed to complete a crime scene examination, which may require collaboration with outside experts and agencies (ii) explain the tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies (iii) demonstrate the ability to work as a member of a crime scene team
		(B) develop a detailed, technical written record based on observations and activities, documenting the crime scene examination	(i) develop a detailed, technical written record based on observations, documenting the crime scene examination (ii) develop a detailed, technical written record based on activities, documenting the crime scene examination
Crime Scene Sketching	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(i) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points (ii) generate a physical or digital crime scene sketch, including compass directions (iii) generate a physical or digital crime scene sketch, including scale of proportion (iv) generate a physical or digital crime scene sketch, including legend-key (v) generate a physical or digital crime scene sketch, including heading (vi) generate a physical or digital crime scene sketch, including heading (vi) generate a physical or digital crime scene sketch, including title block
DNA Analysis	(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(C) describe the structure of a deoxyribonucleic acid (DNA) molecule and its function (D) explain the analytical procedure for generating a DNA profile, including extraction, quantification, amplification, and capillary electrophoresis	(i) describe the structure of a deoxyribonucleic acid (DNA) molecule (ii) describe the function [of a DNA molecule] (i) explain the analytical procedure for generating a DNA profile, including extraction (ii) explain the analytical procedure for generating a DNA profile, including quantification (iii) explain the analytical procedure for generating
			a DNA profile, including amplification (iv) explain the analytical procedure for generating a DNA profile, including capillary electrophoresis

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
	(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(E) explain the different methodologies surrounding the different types of DNA analysis such as short tandem repeats (STRs), Y-STRs, mitochondrial DNA, and single nucleotide polymorphisms (SNPs)	(i) explain the different methodologies surrounding the different types of DNA analysis
DNA Analysis	identification. The etadent to expected to	(F) interpret the components of an electropherogram	(i) interpret the components of an electropherogram
		(G) explore the databasing systems associated with DNA such as Combined DNA Index System (CODIS) and ancestry based databasing systems.	(i) explore the databasing systems associated with DNA
	(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(A) analyze the class and individual characteristics of tool mark impressions and the recovery and documentation of surface characteristics such as wood or metal	(i) analyze the class of tool mark impressions (ii) analyze the individual characteristics of tool mark impressions (iii) analyze the recovery of surface characteristics [of toolmark impressions] (iv) analyze the documentation of surface characteristics [of tool mark impressions]
		(B) analyze the class and individual characteristics of footwear impressions and the recovery and documentation of surface characteristics such as soil or organic plant material	(i) analyze the class of footwear impressions (ii) analyze the individual characteristics of footwear impressions (iii) analyze the recovery of surface characteristics [of footwear impressions]
Tool Mark Analysis		(B) analyze the class and individual characteristics of footwear impressions and the recovery and documentation of surface characteristics such as soil or organic plant material	(iv) analyze the documentation of surface characteristics [of footwear impressions]
		(C) analyze the class and individual characteristics of tire tread impressions and the recovery documentation of surface characteristics such as soil or organic plant material	(i) analyze the class of tire tread impressions (ii) analyze the individual characteristics of tire tread impressions (iii) analyze the recovery documentation of surface characteristics [of tire tread impressions]
		(D) compare impression evidence collected at a simulated crime scene with the known impression.	(i) compare impression evidence collected at a simulated crime scene with the known impression.
	(8) The Student explores career options within forensic science. The Student is expected to	(C) differentiate the functions of various forensic science disciplines such as forensic biology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents.	(i) differentiate the functions of various forensic science disciplines
	(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(A) compare the three major fingerprint patterns of arches, loops, and whorls	(i) compare the three major fingerprint patterns of arches, loops, and whorls
		(B) identify the minutiae of fingerprints, including bifurcations, ending ridges, dots, short ridges, and enclosures/islands	(i) identify the minutiae of fingerprints, including bifurcations (ii) identify the minutiae of fingerprints, including
Fingerprint & Impression Analysis			ending ridges (iii) identify the minutiae of fingerprints, including dots (iv) identify the minutiae of fingerprints, including short ridges (v) identify the minutiae of fingerprints, including
		(C) distinguish between patent, plastic, and latent impressions	enclosures/islands (i) distinguish between patent, plastic, and latent impressions
		(D) perform procedures for developing and lifting latent prints on nonporous surfaces using cyanoacrylate and fingerprint powders	(i) perform procedures for developing latent prints on nonporous surfaces using cyanoacrylate

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
	(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(D) perform procedures for developing and lifting latent prints on nonporous surfaces using cyanoacrylate and fingerprint powders	(ii) perform procedures for lifting latent prints on nonporous surfaces using cyanoacrylate (iii) perform procedures for developing latent prints on nonporous surfaces using fingerprint powders
		(E) perform procedures for developing letest prints using chemical	(iv) perform procedures for lifting latent prints on nonporous surfaces using fingerprint powders (i) perform procedures for developing latent prints
Fingerprint & Impression Analysis		(E) perform procedures for developing latent prints using chemical processes on porous and adhesive surfaces with chemicals such as ninhydrin and crystal violet and documenting the results via photography	using chemical processes on porous surfaces with chemicals
impression Analysis			(ii) perform procedures for developing latent prints using chemical processes on adhesive surfaces with chemicals (iii) perform procedures for documenting the results
		(F) explain the Integrated Automated Fingerprint Identification System (IAFIS) and describe the implications of Next Generation Identification (NGI) systems.	via photography (i) explain the Integrated Automated Fingerprint Identification System (IAFIS) (ii) describe the implications of Next Generation Identification (NGI) systems.
	(13) The Student recognizes the methods to process and analyze glass evidence. The	(B) compare the composition of various types of glass such as soda lime, borosilicate, leaded, and tempered	(i) compare the composition of various types of glass
Trace Evidence: Glass &	Student is expected to	(C) determine the direction of a projectile by examining glass fractures	(i) determine the direction of a projectile by examining glass fractures
Paint		(D) define refractive index and explain how it is used in forensic glass analysis.	(i) define refractive index (ii) explain how [refractive index] is used in forensic class analysis
	(8) The Student explores career options within forensic science. The Student is expected to	(C) differentiate the functions of various forensic science disciplines such as forensic biology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents.	(i) differentiate the functions of various forensic science disciplines
	(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(B) perform the analysis of hair and fiber evidence using forensic science methods such as microscopy and flame testing	(i) perform the analysis of hair evidence using forensic science methods
			(ii) perform the analysis of fiber evidence using forensic science methods
		(C) compare the microscopic characteristics of human hair and non- human hair, including medulla, pigment distribution, and scales	(i) compare the microscopic characteristics of human hair and non-human hair, including medulla
Trace Evidence: Hair & Fiber			(ii) compare the microscopic characteristics of human hair and non-human hair, including pigment distribution
			(iii) compare the microscopic characteristics of human hair and non-human hair, including scales
		(D) describe and illustrate the different microscopic characteristics used to determine the origin of a human hair sample	(i) describe the different microscopic characteristics used to determine the origin of a human hair sample
			(ii) illustrate the different microscopic characteristics used to determine the origin of a human hair sample
		(E) differentiate between natural and synthetic fibers.	(i) differentiate between natural and synthetic fibers.

Forensic Science			
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout
Document Analysis: Forgery &	(14) The Student explores principles of questioned document analysis in the physical and digital form. The Student is expected to	(B) investigate and describe the security features incorporated in U.S. and foreign currency to prevent counterfeiting	(i) investigate the security features incorporated in U.S. currency to prevent counterfeiting (ii) investigate the security features incorporated in foreign currency to prevent counterfeiting
Counterfeiting			(iii) describe the security features incorporated in U.S. currency to prevent counterfeiting (iv) describe the security features incorporated in foreign currency to prevent counterfeiting
Document Analysis: Handwriting	digital form. The Student is expected to	(C) perform handwriting comparisons of an unknown sample with exemplars by analyzing characteristics such as letter, line, and formatting.	(i) perform handwriting comparisons of an unknown sample with exemplars by analyzing characteristics
Document Analysis: Materials	(14) The Student explores principles of questioned document analysis in the physical and digital form. The Student is expected to	(A) research and explain different types of examinations performed on digital and physical evidence in a forensic laboratory such as digital data recovery, counterfeiting, ink, and paper analysis	(ii) research different types of examinations performed on physical evidence in a forensic laboratory (iv) explain different types of examinations
Materials			performed on physical evidence in a forensic laboratory
	(8) The Student explores career options within forensic science. The Student is expected to	(C) differentiate the functions of various forensic science disciplines such as forensic biology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents.	(i) differentiate the functions of various forensic science disciplines
Digital Forensics	(14) The Student explores principles of questioned document analysis in the physical and digital form. The Student is expected to	(A) research and explain different types of examinations performed on digital and physical evidence in a forensic laboratory such as digital data recovery, counterfeiting, ink, and paper analysis	(i) research different types of examinations performed on digital evidence in a forensic laboratory
			(iii) explain different types of examinations performed on digital evidence in a forensic laboratory
Crime Scene Photography	(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(E) document a crime scene using photographic or audiovisual equipment	(i) document a crime scene using photographic or audiovisual equipment
	(21) The Student explores principles of anthropology and odontology relevant to forensic	(A) identify the major bones of the human skeletal system	(i) identify the major bones of the human skeletal system
	science. The Student is expected to	(B) compare composition and structure of human and non-human bones;	(i) compare composition of human and non-human bones (ii) compare structure of human and non-human bones
Forensic Anthropology		(D) explain the characteristics of the human skeletal system indicative of specific biological sex and approximate range of age and height; and	(i) explain the characteristics of the human skeletal system indicative of specific biological sex
& Odontology			(ii) explain the characteristics of the human skeletal system indicative of approximate range of age
			(iii) explain the characteristics of the human skeletal system indicative of approximate range of height
	(00) The Outle of the State of	(E) explain how human remains are identified through dental records such as dentures, x-rays, and implants.	(i) explain how human remains are identified through dental records
Decomposition Analysis	(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(A) explain the principles of rigor, algor, and livor mortis and how they apply to deceased persons	(i) explain the [principle] of rigor mortis (ii) explain the [principle] of algor mortis (iii) explain the [principle] of livor mortis
,			(iv) explain how [rigor mortis applies] to deceased persons

Forensic Science	orensic Science				
Lesson Title	Knowledge & Skill Statement	Student Expectation	Breakout		
Decomposition Analysis	(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(A) explain the principles of rigor, algor, and livor mortis and how they apply to deceased persons	(v) explain how [algor mortis applies] to deceased persons (vi) explain how [livor mortis applies] to deceased persons		
		(D) determine the approximate time of death using entomology.	(i) determine the approximate time of death using entomology		
Death Investigations	(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(B) differentiate between the types of wound patterns such as lacerations and blunt force trauma resulting from stabbings, bludgeoning, gunshots, and strangulations (C) determine cause and manner of death from an autopsy report obtained through resources such as case studies, simulated autopsies, and dissections	(i) differentiate between the types of wound patterns resulting from stabbings, bludgeoning, gunshots, and strangulations (i) determine cause of death from an autopsy report obtained through resources (ii) determine manner of death from an autopsy report obtained through resources		
Autopsy Process	(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(C) determine cause and manner of death from an autopsy report obtained through resources such as case studies, simulated autopsies, and dissections			
Forensic Entomology	(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(D) determine the approximate time of death using entomology.	(i) determine the approximate time of death using entomology		

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(1) The Student demonstrates professional	(A) demonstrate professional standards/employability skills	(i) demonstrate professional standards	Professionalism in the Sciences: Forensic Science (Slides 5-
standards/employability skills as required by business	such as demonstrating good attendance, punctuality, and		93), Activity-Professionalism Skit, Activity-Collaboration Task,
and industry. The Student is expected to	ethical conduct; meeting deadlines, and working toward		Activity-Draw a Professional
·	personal and team goals.		·
(1) The Student demonstrates professional	(A) demonstrate professional standards/employability skills	(ii) demonstrate employability skills	Professionalism in the Sciences: Forensic Science (Slides 5-
standards/employability skills as required by business	such as demonstrating good attendance, punctuality, and		93), Project-Employee Handbook, Activity-Collaboration Task,
and industry. The Student is expected to	ethical conduct; meeting deadlines, and working toward		Activity-Task Prioritization and Schedule; Ethics in Forensic
'	personal and team goals.		Science (Slides 5-10, 22-28)
(2) The Student, for at least 40% of instructional time,	(A) ask questions and define problems based on	(i) ask guestions based on	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	observations or information from text, phenomena, models,	observations or information from text,	(Slides 5-26), Project-Design Your Own Investigation, Activity-
safely conducts classroom, laboratory, and field	or investigations	phenomena, models, or investigations	Scientific Method Case Study
investigations to answer questions, explain phenomena,		[
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(A) ask questions and define problems based on	(ii) define problems based on	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	observations or information from text, phenomena, models,	observations or information from text,	(Slides 5-26), Project-Design Your Own Investigation, Activity-
safely conducts classroom, laboratory, and field	or investigations	phenomena, models, or investigations	Scientific Method Case Study
investigations to answer questions, explain phenomena,	or invocinguitorio	priorioria, modolo, or invocagationo	Solomano Moniou Guos Guay
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(B) apply scientific practices to plan and conduct descriptive,	(i) apply scientific practices to plan	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	comparative, and experimental investigations and use	descriptive investigations	(Slides 5-25, 33-34), Project-Design Your Own Investigation,
safely conducts classroom, laboratory, and field	engineering practices to design solutions to problems	descriptive investigations	Activity-Scientific Method Case Study
investigations to answer questions, explain phenomena,	problems problems		Notivity-colemnic incursor case citaly
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(B) apply scientific practices to plan and conduct descriptive,	(ii) apply scientific practices to plan	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	comparative, and experimental investigations and use	comparative investigations	(Slides 5-26, 29-30), Project-Design Your Own Investigation,
safely conducts classroom, laboratory, and field	engineering practices to design solutions to problems	Comparative investigations	Activity-Scientific Method Case Study
investigations to answer questions, explain phenomena,	problems problems		Notivity-colemnic incursor case citaly
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(B) apply scientific practices to plan and conduct descriptive,	(iii) apply scientific practices to plan	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	comparative, and experimental investigations and use	experimental investigations	(Slides 5-26, 31-32), Project-Design Your Own Investigation,
safely conducts classroom, laboratory, and field	engineering practices to design solutions to problems	experimental investigations	Activity-Scientific Method Case Study
investigations to answer questions, explain phenomena,	lengineering practices to design solutions to problems		Activity-Scientific Method Case Study
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(B) apply scientific practices to plan and conduct descriptive,	(iv) apply scientific practices to conduct	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	comparative, and experimental investigations and use	descriptive investigations	(Slides 5-26, 33-34), Project-Design Your Own Investigation,
safely conducts classroom, laboratory, and field	engineering practices to design solutions to problems	accomplise investigations	Activity-Scientific Method Case Study
investigations to answer questions, explain phenomena,	lendineering bractices to design solutions to broblems		Activity-ocientino Method Case Study
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(B) apply scientific practices to plan and conduct descriptive,	(v) apply scientific practices to conduct	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	comparative, and experimental investigations and use	comparative investigations	(Slides 5-26, 29-30), Project-Design Your Own Investigation,
safely conducts classroom, laboratory, and field	engineering practices to design solutions to problems	Comparative investigations	Activity-Scientific Method Case Study
investigations to answer questions, explain phenomena,	lengineering practices to design solutions to problems		Activity-ocienting Method Case Study
or design solutions using appropriate tools and models. The Student is expected to			
The Student is expected to		1	

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems		
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(B) apply scientific practices to plan and conduct descriptive, comparative, and experimental investigations and use engineering practices to design solutions to problems	(vii) use engineering practices to design solutions to problems	Conducting Lab and Field Investigations: Forensic Science (Slides 5-39), Project-Design Your Own Investigation
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(i) use appropriate safety equipment during laboratory investigations as outlined in Texas Education Agency approved safety standards	Forensic Science Safety and Regulations (Slides 31-37), Activity- Personal Protective Equipment
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(ii) use appropriate safety equipment during classroom investigations as outlined in Texas Education Agency approved safety standards	Forensic Science Safety and Regulations (Slides 34-37), Activity- Personal Protective Equipment
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(iii) use appropriate safety equipment during field investigations as outlined in Texas Education Agency approved safety standards	Forensic Science Safety and Regulations (Slides 23-30, 34-37), Activity-Personal Protective Equipment
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(iv) use appropriate safety practices during laboratory investigations as outlined in Texas Education Agency approved safety standards	Forensic Science Safety and Regulations (Slides 31-48); Conducting Lab and Field Investigations: Forensic Science - Project-Design Your Own Investigation
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	Texas Education Agency-approved safety standards	(v) use appropriate safety practices during classroom investigations as outlined in Texas Education Agency approved safety standards	Forensic Science Safety and Regulations (Slides 37-46); Conducting Lab and Field Investigations: Forensic Science - Project-Design Your Own Investigation
(2) The Student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The Student is expected to	(C) use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards	(vi) use appropriate safety practices during field investigations as outlined in Texas Education Agency approved safety standards	Forensic Science Safety and Regulations (Slides 23-30, 37-46); Conducting Lab and Field Investigations: Forensic Science - Project-Design Your Own Investigation

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(2) The Student, for at least 40% of instructional time,	(D) use appropriate tools and equipment such as scientific	(i) use appropriate tools	Tools in Forensic Science (Slides 5-84), Project-Forensic
asks questions, identifies problems, and plans and	calculators, computers, internet access, digital cameras,		Science Tools in Your Classroom, Activity-Tools in Forensic
safely conducts classroom, laboratory, and field	video recording devices, meter sticks, metric rulers,		Science Diagram
investigations to answer questions, explain phenomena,	measuring tapes, digital range finders, protractors, calipers,		
or design solutions using appropriate tools and models.	light microscopes up to 100x magnification, hand lenses,		
The Student is expected to	stereoscopes, digital scales, dissection equipment, standard		
'	laboratory glassware, appropriate personal protective		
	equipment (PPE), an adequate supply of consumable		
	chemicals, biological specimens, prepared evidence slides		
	and samples, evidence packaging and tamper evident tape,		
	evidence tents, crime scene tape, L-rulers, American Board		
	of Forensic Odontology (ABFO) scales, alternate light		
	sources (ALS) and ALS protective goggles, blood		
	specimens, blood presumptive tests, glass samples of		
	various chemical composition, human and non-human		
	bones, fingerprint brushes and powders, lifting tapes and		
	cards, ten-print cards and ink pads, swabs with containers,		
	disposable gloves, and relevant and necessary kits		
(2) The Student, for at least 40% of instructional time,	(D) use appropriate tools and equipment such as scientific	(ii) use appropriate equipment	Tools in Forensic Science (Slides 5-84), Activity-Tools in
asks questions, identifies problems, and plans and	calculators, computers, internet access, digital cameras,		Forensic Science Notecards, Activity-Tools in Forensic Science
safely conducts classroom, laboratory, and field	video recording devices, meter sticks, metric rulers,		Diagram
investigations to answer questions, explain phenomena,	measuring tapes, digital range finders, protractors, calipers,		
or design solutions using appropriate tools and models.	light microscopes up to 100x magnification, hand lenses,		
The Student is expected to	stereoscopes, digital scales, dissection equipment, standard		
	laboratory glassware, appropriate personal protective		
	equipment (PPE), an adequate supply of consumable		
	chemicals, biological specimens, prepared evidence slides		
	and samples, evidence packaging and tamper evident tape,		
	evidence tents, crime scene tape, L-rulers, American Board		
	of Forensic Odontology (ABFO) scales, alternate light		
	sources (ALS) and ALS protective goggles, blood		
	specimens, blood presumptive tests, glass samples of		
	various chemical composition, human and non-human		
	bones, fingerprint brushes and powders, lifting tapes and		
	cards, ten-print cards and ink pads, swabs with containers,		
	disposable gloves, and relevant and necessary kits		
	(-)	(2)	
(2) The Student, for at least 40% of instructional time,	(E) collect quantitative data with accuracy and precision	(i) collect quantitative data with	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	using the International System of Units (SI) and United	accuracy using the International	(Slides 5-26), Blood Spatter Project-Find the Origin
safely conducts classroom, laboratory, and field	States customary units and qualitative data as evidence	System of Units (SI)	
investigations to answer questions, explain phenomena,			
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(E) collect quantitative data with accuracy and precision	(ii) collect quantitative data with	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	using the International System of Units (SI) and United	precision using the International	(Slides 5-26), Blood Spatter Project-Find the Origin
safely conducts classroom, laboratory, and field	States customary units and qualitative data as evidence	System of Units (SI)	
investigations to answer questions, explain phenomena,			
or design solutions using appropriate tools and models.			
The Student is expected to			

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(2) The Student, for at least 40% of instructional time,	(E) collect quantitative data with accuracy and precision	(iii) collect quantitative data with	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	using the International System of Units (SI) and United	accuracy using United States	(Slides 5-26), Blood Spatter Project-Find the Origin
safely conducts classroom, laboratory, and field	States customary units and qualitative data as evidence	customary units	(
investigations to answer questions, explain phenomena,	, '	·	
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(E) collect quantitative data with accuracy and precision	(iv) collect quantitative data with	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	using the International System of Units (SI) and United	precision using United States	(Slides 5-26), Blood Spatter Project-Find the Origin
safely conducts classroom, laboratory, and field	States customary units and qualitative data as evidence	customary units	(Single Congress of Single Congr
investigations to answer questions, explain phenomena,	John Comment and quantum and an original		
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(E) collect quantitative data with accuracy and precision	(v) collect qualitative data as evidence	Conducting Lab and Field Investigations: Forensic Science
asks questions, identifies problems, and plans and	using the International System of Units (SI) and United	(v) concer quantative data de evidence	(Slides 5-26), Activity-Scientific Method Mini-Lab
safely conducts classroom, laboratory, and field	States customary units and qualitative data as evidence		(Chass & 20), Floating Colonial Minimal East
investigations to answer questions, explain phenomena,	Charles described with and quantative data do evidence		
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(F) organize quantitative and qualitative data using	(i) organize quantitative data using	Conducting Lab and Field Investigations: Forensic Science -
asks questions, identifies problems, and plans and	appropriate methods of communication such as reports,		Student Handout-Data Collection Methods, Project-Design Your
safely conducts classroom, laboratory, and field	graphs, tables, or charts	appropriate methods of communication	Own Investigation
investigations to answer questions, explain phenomena,	graphs, tables, or charts		Own investigation
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(F) organize quantitative and qualitative data using	(ii) organize qualitative data using	Conducting Lab and Field Investigations: Forensic Science -
asks questions, identifies problems, and plans and	appropriate methods of communication such as reports,		Student Handout-Data Collection Methods, Project-Design Your
safely conducts classroom, laboratory, and field	graphs, tables, or charts	appropriate methods of communication	Own Investigation
investigations to answer questions, explain phenomena,	graphs, tables, or charts		Own investigation
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(G) develop and use models to represent phenomena,	(i) develop models to represent	Developing a Model: Forensic Science (Slides 5-29), Activity-
asks questions, identifies problems, and plans and	systems, processes, or solutions to engineering problems	phenomena, systems, processes, or	Developing a Model. Potensic Science (Slides 5-29), Activity-
safely conducts classroom, laboratory, and field	systems, processes, or solutions to engineering problems	solutions to engineering problems	Developing a Model
investigations to answer questions, explain phenomena,		solutions to engineering problems	
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(G) develop and use models to represent phenomena,	(ii) use models to represent	Developing a Model: Forensic Science (Slides 5-29), Activity-
asks questions, identifies problems, and plans and	systems, processes, or solutions to engineering problems	phenomena, systems, processes, or	Developing a Model, Activity-Models in Science
safely conducts classroom, laboratory, and field	aystems, processes, or solutions to engineering problems	solutions to engineering problems	Developing a Model, Activity-Models in Science
investigations to answer questions, explain phenomena,		Solutions to engineering problems	
or design solutions using appropriate tools and models.			
The Student is expected to			
(2) The Student, for at least 40% of instructional time,	(H) distinguish between scientific hypotheses, theories, and	(i) distinguish between scientific	Science Explained: Forensic Science (Slides 21-31), Activity-
asks questions, identifies problems, and plans and	laws	hypotheses, theories, and laws	Categorizing Statements, Activity-Statement Analysis Bell
safely conducts classroom, laboratory, and field	iaws	inypouleses, theories, and laws	Ringer
investigations to answer questions, explain phenomena,			ranger
or design solutions using appropriate tools and models.			
The Student is expected to (3) The Student analyzes and interprets data to derive	(A) identify advantages and limitations of models such as	(i) identify adventages of models	Davidoning a Model: Forencia Science (Slides F 20), Astivity
	(A) identify advantages and limitations of models such as	(i) identify advantages of models	Developing a Model: Forensic Science (Slides 5-29), Activity-
meaning, identify features and patterns, and discover	their size, scale, properties, and materials		Developing a Model, Activity-Models in Science
relationships or correlations to develop evidence-based			
arguments or evaluate designs. The Student is expected			
to			

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(A) identify advantages and limitations of models such as their size, scale, properties, and materials	(ii) identify limitations of models	Developing a Model: Forensic Science (Slides 5-29), Activity- Developing a Model, Activity-Models in Science
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	patterns, sources of error, and limitations	(i) analyze data by identifying significant statistical features	Analyzing Data: Forensic Science (Slide 5-44), Activity- Inferential Statistics Analysis, Activity-Descriptive Statistics Analysis
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	patterns, sources of error, and limitations	(ii) analyze data by identifying patterns	Analyzing Data: Forensic Science (Slide 5-44), Activity- Inferential Statistics Analysis, Activity-Descriptive Statistics Analysis
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	patterns, sources of error, and limitations	(iii) analyze data by identifying sources of error	Analyzing Data: Forensic Science (Slide 5-44), Activity- Inferential Statistics Analysis, Activity-Descriptive Statistics Analysis
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	patterns, sources of error, and limitations	(iv) analyze data by identifying limitations	Analyzing Data: Forensic Science (Slide 5-44), Activity- Inferential Statistics Analysis, Activity-Descriptive Statistics Analysis
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(C) use mathematical calculations to assess quantitative relationships in data	(i) use mathematical calculations to assess quantitative relationships in data	Analyzing Data: Forensic Science (Slides 8-45), Activity- Descriptive Statistical Analysis, Activity-Inferential Statisitical Analysis
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(D) evaluate experimental and engineering designs.	(i) evaluate experimental designs	Experimental Design: Forensic Science (Slides 33-42), Activity- Evaluating Experimental Designs
(3) The Student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The Student is expected to	(D) evaluate experimental and engineering designs.	(ii) evaluate engineering designs	Experimental Design: Forensic Science (Slides 22-31), Activity- Evaluating Engineering Designs
(4) The Student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The Student is expected to	(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories	(i) develop explanations supported by data and consistent with scientific ideas	Communicating Findings in Forensic Science (Slides 19-28), Project-Communicating Findings, Activity-Designing Non- Textual Elements, Activity-Data to Communicate, Student Handout-Types of Graphs
(4) The Student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The Student is expected to	(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories	(ii) develop explanations supported by data and consistent with scientific principles	Communicating Findings in Forensic Science (Slides 19-28), Project-Communicating Findings, Activity-Designing Non- Textual Elements, Activity-Data to Communicate, Student Handout-Types of Graphs
(4) The Student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The Student is expected to	(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories	(iii) develop explanations supported by data and consistent with scientific theories	Communicating Findings in Forensic Science (Slides 19-28), Project-Communicating Findings, Activity-Designing Non- Textual Elements, Activity-Data to Communicate, Student Handout-Types of Graphs

Student Expectation	Breakout	iCEV
(A) develop explanations and propose solutions supported	(iv) develop explanations supported by	Communicating Findings in Forensic Science (Slides 19-28),
by data and models and consistent with scientific ideas,	models and consistent with scientific	Project-Communicating Findings, Activity-Designing Non-
principles, and theories	ideas	Textual Elements, Activity-Data to Communicate, Student
		Handout-Types of Graphs
(A) develop explanations and propose solutions supported	(v) develop explanations supported by	Communicating Findings in Forensic Science (Slides 19-28),
		Project-Communicating Findings, Activity-Designing Non-
1 *		Textual Elements, Activity-Data to Communicate, Student
principles, and theories	principles	Handout-Types of Graphs
(A) develop explanations and propose solutions supported	(vi) develop explanations supported by	Communicating Findings in Forensic Science (Slides 19-28),
by data and models and consistent with scientific ideas,	models and consistent with scientific	Project-Communicating Findings, Activity-Designing Non-
principles, and theories	theories	Textual Elements, Activity-Data to Communicate, Student
		Handout-Types of Graphs
(A) develop explanations and propose solutions supported	(vii) propose solutions supported by	Communicating Findings in Forensic Science (Slides 19-28),
by data and models and consistent with scientific ideas,	data and consistent with scientific	Activity-Designing Solutions
principles, and theories	ideas	
(A) develop evalenations and respect solutions are set of	(viii) propose solutions supported by	Communicating Findings in Forencia Science (Slide: 40.00)
		Communicating Findings in Forensic Science (Slides 19-28),
		Project-Communicating Findings, Activity-Designing Non-
principles, and theories	principles	Textual Elements, Activity-Data to Communicate, Student
(A) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Handout-Types of Graphs
		Communicating Findings in Forensic Science (Slides 19-28),
1 *		Project-Communicating Findings, Activity-Designing Non-
principles, and theories	theories	Textual Elements, Activity-Data to Communicate, Student
(A) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	()	Handout-Types of Graphs
1, , , , , , , , , , , , , , , , , , ,		Communicating Findings in Forensic Science (Slides 19-28),
		Activity-Designing Solutions
principles, and theories	ideas	
(A) develop explanations and propose solutions supported	(xi) propose solutions supported by	Communicating Findings in Forensic Science (Slides 19-28),
		Project-Communicating Findings, Activity-Designing Non-
1		Textual Elements, Activity-Data to Communicate, Student
	,	Handout-Types of Graphs
(A) develop explanations and propose solutions supported	(xii) propose solutions supported by	Communicating Findings in Forensic Science (Slides 19-28),
		Activity-Designing Solutions
principles, and theories	theories	, 3 3
		Communicating Findings in Forensic Science (Slides 5-17),
collaboratively in a variety of settings and formats	individually in a variety of settings	Project-Communicating Findings, Activity-Data to
		Communicate, Student Handout-Types of Graphs
(B) communicate explanations and solutions individually and	(ii) communicate evalanations	Communicating Findings in Forensic Science (Slides 5-17),
		Project-Communicating Findings, Activity-Data to
Collaboratively in a vallety of settings and formats	lindividually in a vallety of formats	Communicate, Student Handout-Types of Graphs
		Communicate, Student Handout-Types of Graphs
(B) communicate explanations and solutions individually and	(iii) communicate explanations	Communicating Findings in Forensic Science (Slides 5-17),
collaboratively in a variety of settings and formats	collaboratively in a variety of settings	Project-Communicating Findings, Activity-Data to
		Communicate, Student Handout-Types of Graphs
1/6)	(iv) communicate evaluations	Communicating Findings in Forensic Science (Slides 5-17),
(B) communicate explanations and solutions individually and	. ,	, , , , , , , , , , , , , , , , , , , ,
collaboratively in a variety of settings and formats	collaboratively in a variety of formats	Project-Communicating Findings, Activity-Data to Communicate, Student Handout-Types of Graphs
	 (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats (B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats (B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats 	(A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (A) develop explanations and propose solutions supported by data and models and consistent with scientific ideas, principles, and theories (B) communicate explanations and solutions individually and (ii) communicate explanations individually in a variety of formats

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(4) The Student develops evidence-based explanations	(B) communicate explanations and solutions individually and		Communicating Findings in Forensic Science (Slides 5-17),
and communicates findings, conclusions, and proposed	1, ,	in a variety of settings	, , , , , , , , , , , , , , , , , , , ,
	collaboratively in a variety of settings and formats	in a variety of settings	Project-Communicating Findings, Activity-Data to
solutions. The Student is expected to			Communicate, Student Handout-Types of Graphs
4) The Student develops evidence-based explanations	(B) communicate explanations and solutions individually and	(vi) communicate solutions individually	Communicating Findings in Forensic Science (Slides 5-17),
and communicates findings, conclusions, and proposed	collaboratively in a variety of settings and formats	in a variety of formats	Project-Communicating Findings, Activity-Data to
solutions. The Student is expected to	onazoranion, in a ranot, or obtaining and formate	in a variety of formate	Communicate, Student Handout-Types of Graphs
solutions. The olducin is expedied to			Communicate, Student Handout-Types of Graphs
4) The Student develops evidence-based explanations	(B) communicate explanations and solutions individually and		Communicating Findings in Forensic Science (Slides 5-17),
and communicates findings, conclusions, and proposed	collaboratively in a variety of settings and formats	collaboratively in a variety of settings	Project-Communicating Findings, Activity-Data to
solutions. The Student is expected to			Communicate, Student Handout-Types of Graphs
(4) The Student develops evidence-based explanations	(B) communicate explanations and solutions individually and	(viii) communicate solutions	Communicating Findings in Forensic Science (Slides 5-17),
and communicates findings, conclusions, and proposed	collaboratively in a variety of settings and formats	collaboratively in a variety of formats	Project-Communicating Findings, Activity-Data to
	Collaboratively in a vallety of settings and formats	Collaboratively in a variety of formats	
solutions. The Student is expected to			Communicate, Student Handout-Types of Graphs
(4) The Student develops evidence-based explanations	(C) engage respectfully in scientific argumentation using	(i) engage respectfully in scientific	Communicating Findings in Forensic Science (Slides 5-17),
and communicates findings, conclusions, and proposed	applied scientific explanations and empirical evidence.	argumentation using applied scientific	Project-Communicating Findings, Activity-Data to
solutions. The Student is expected to		explanations	Communicate, Student Handout-Types of Graphs
(4) The Student develops evidence-based explanations	(C) engage respectfully in scientific argumentation using	(ii) engage respectfully in scientific	Communicating Findings in Forensic Science (Slides 5-17),
and communicates findings, conclusions, and proposed	applied scientific explanations and empirical evidence.	argumentation using empirical	Project-Communicating Findings, Activity-Data to
	applied scientific explanations and empirical evidence.		
solutions. The Student is expected to		evidence	Communicate, Student Handout-Types of Graphs
5) The Student knows the contributions of scientists	(A) analyze, evaluate, and critique scientific explanations	(i) analyze scientific explanations by	Science Explained: Forensic Science (Slides 33-53), Project-
and engineers and recognizes the importance of	and solutions by using empirical evidence, logical reasoning,	using empirical evidence so as to	Science or Pseudo-Science Case Study
scientific research and innovation on society. The	and experimental and observational testing so as to	encourage critical thinking by the	,
Student is expected to	encourage critical thinking by the Student	Student	
(5) The Student knows the contributions of scientists	(A) analyze, evaluate, and critique scientific explanations	(ii) analyze scientific explanations by	Science Explained: Forensic Science (Slides 33-53), Project-
· /			
and engineers and recognizes the importance of	and solutions by using empirical evidence, logical reasoning,	using logical reasoning so as to	Scientific Research, Student Handout-Evaluating a Source
scientific research and innovation on society. The	and experimental and observational testing so as to	encourage critical thinking by the	
Student is expected to	encourage critical thinking by the Student	Student	
(5) The Student knows the contributions of scientists	(A) analyze, evaluate, and critique scientific explanations	(iii) analyze scientific explanations by	Science Explained: Forensic Science (Slides 33-53), Project-
and engineers and recognizes the importance of	and solutions by using empirical evidence, logical reasoning,	using experimental testing so as to	Scientific Research
scientific research and innovation on society. The	and experimental and observational testing so as to	encourage critical thinking by the	
Student is expected to	encourage critical thinking by the Student	Student	
5.4445.11.15 57.p55154 15	energy character annual graph of the character		
(5) The Student knows the contributions of scientists	(A) analyze, evaluate, and critique scientific explanations	(iv) analyze scientific explanations by	Science Explained: Forensic Science (Slides 33-53), Project-
and engineers and recognizes the importance of	and solutions by using empirical evidence, logical reasoning,	using observational testing so as to	Scientific Research
scientific research and innovation on society. The	and experimental and observational testing so as to	encourage critical thinking by the	
Student is expected to	encourage critical thinking by the Student	Student	
(5) The Student knows the contributions of scientists	(A) analyze, evaluate, and critique scientific explanations	(v) evaluate scientific explanations by	Science Explained: Forensic Science (Slides 33-53), Project-
and engineers and recognizes the importance of	and solutions by using empirical evidence, logical reasoning,	using empirical evidence so as to	Science or Pseudo-Science Case Study
scientific research and innovation on society. The	and experimental and observational testing so as to	encourage critical thinking by the	Colende of 1 Seduo-Science Case Study
Student is expected to	encourage critical thinking by the Student	Student	
(5) The Student knows the contributions of scientists	(A) analyze, evaluate, and critique scientific explanations	(vi) evaluate scientific explanations by	Science Explained: Forensic Science (Slides 33-53), Project-
and engineers and recognizes the importance of	and solutions by using empirical evidence, logical reasoning,	using logical reasoning so as to	Scientific Research, Student Handout-Evaluating a Source
scientific research and innovation on society. The	and experimental and observational testing so as to	encourage critical thinking by the	
Student is expected to	encourage critical thinking by the Student	Student	
•			
	-	-	

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(vii) evaluate scientific explanations by using experimental testing so as to encourage critical thinking by the Student	Science Explained: Forensic Science (Slides 33-53), Project-Scientific Research
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(viii) evaluate scientific explanations by using experimental testing so as to encourage critical thinking by the Student	Science Explained: Forensic Science (Slides 33-53), Project- Scientific Research
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(ix) critique scientific explanations by using empirical evidence so as to encourage critical thinking by the Student	Science Explained: Forensic Science (Slides 33-53), Project- Scientific Research, Student Handout-Evaluating a Source
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(x) critique scientific explanations by using logical reasoning so as to encourage critical thinking by the Student	Science Explained: Forensic Science (Slides 33-53), Project- Scientific Research, Student Handout-Evaluating a Source
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(xi) critique scientific explanations by using experimental testing so as to encourage critical thinking by the Student	Science Explained: Forensic Science (Slides 33-53), Project- Scientific Research, Student Handout-Evaluating a Source
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(A) analyze, evaluate, and critique scientific explanations and solutions by using empirical evidence, logical reasoning, and experimental and observational testing so as to encourage critical thinking by the Student	(xii) critique scientific explanations by using observational testing so as to encourage critical thinking by the Student	Science Explained: Forensic Science (Slides 33-53), Project- Scientific Research, Student Handout-Evaluating a Source
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(i) relate the impact of past research on scientific thought, including research methodology	Impact of Science: Forensic Science (Slides 5-26), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk, Activity-Name the Innovation Bell Ringer
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(ii) relate the impact of past research on scientific thought, including cost- benefit analysis	Impact of Science: Forensic Science (Slides 5-26), Student Handout-What is Cost-Benefit Analysis?, Project-Innovation Road Map
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(iii) relate the impact of past research on scientific thought, including contributions of diverse scientists as related to the content	Impact of Science: Forensic Science (Slides 5-26), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk, Activity-Name the Innovation Bell Ringer
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(iv) relate the impact of past research on scientific thought, including contributions of diverse engineers as related to the content	Impact of Science: Forensic Science (Slides 5-18), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(v) relate the impact of past research on society, including research methodology	Impact of Science: Forensic Science (Slides 5-26), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk, Activity-Name the Innovation Bell Ringer

Knowledge and Skill Statement	Otredant Formantation	Breakout	iCEV
Knowledge and Skill Statement (5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(vi) relate the impact of past research on society, including cost-benefit analysis	Impact of Science: Forensic Science (Slides 5-26), Student Handout-What is Cost-Benefit Analysis?, Project-Innovation Road Map
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(vii) relate the impact of past research on society, including contributions of diverse scientists as related to the content	Impact of Science: Forensic Science (Slides 5-26), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk, Activity-Name the Innovation Bell Ringer
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(viii) relate the impact of past research on society, including contributions of diverse engineers as related to the content	Impact of Science: Forensic Science (Slides 5-18), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(ix) relate the impact of current research on scientific thought, including research methodology	Impact of Science: Forensic Science (Slides 28-32), Project- Innovation Road Map, Project-Current Trend and Innovations Magazine Cover
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(x) relate the impact of current research on scientific thought, including cost-benefit analysis	Impact of Science: Forensic Science (Slides 28-32), Project- Innovation Road Map, Project-Current Trend and Innovations Magazine Cover, Student Handout-What is Cost-Benefit Analysis?
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(xi) relate the impact of current research on scientific thought, including contributions of diverse scientists as related to the content	Impact of Science: Forensic Science (Slides 28-32), Project- Innovation Road Map, Project-Current Trend and Innovations Magazine Cover
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(xii) relate the impact of current research on scientific thought, including contributions of diverse engineers as related to the content	Impact of Science: Forensic Science (Slides 5-18), Project- Innovation Road Map, Activity-Science Hall of Fame, Activity- Science Hall of Fame Gallery Walk
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(xiii) relate the impact of current research on society, including research methodology	Impact of Science: Forensic Science (Slides 28-32), Project- Current Trend and Innovations Magazine Cover
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(xiv) relate the impact of current research on society, including cost- benefit analysis	Impact of Science: Forensic Science (Slides 28-32), Student Handout-What is Cost-Benefit Analysis?, Project-Innovation Road Map
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(xv) relate the impact of current research on society, including contributions of diverse scientists as related to the content; and	Impact of Science: Forensic Science (Slides 28-32), Project- Innovation Road Map, Project-Current Trend and Innovations Magazine Cover
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(B) relate the impact of past and current research on scientific thought and society, including research methodology, cost-benefit analysis, and contributions of diverse scientists and engineers as related to the content	(xvi) relate the impact of current research on society, including contributions of diverse engineers as related to the content; and	Impact of Science: Forensic Science (Slides 28-32), Project- Innovation Road Map, Project-Current Trend and Innovations Magazine Cover

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(C) research and explore resources such as museums, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field.	(i) research resources	STEM Careers: Forensic Science (Slides 17-49), Project-Career Research, Activity-STEM Career Scavenger Hunt, Activity-Educational Opportunities, Activity-Career Connections
(5) The Student knows the contributions of scientists and engineers and recognizes the importance of scientific research and innovation on society. The Student is expected to	(C) research and explore resources such as museums, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field.	(ii) explore resources	STEM Careers: Forensic Science (Slides 17-49), Activity-Job Search, Project-Career Research, Activity-Job Posting Analysis Bell Ringer Bell Ringer, Activity-Career Connections
(6) The Student explores the history of forensic science. The Student is expected to	(A) analyze the historical development and current advancements of different forensic science disciplines such as forensic biology, anthropology/odontology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents	(i) analyze the historical development of different forensic science disciplines	History and Evolution of Forensic Science (Slides 5-30), Activity- Forensic Science Timeline
(6) The Student explores the history of forensic science. The Student is expected to	(A) analyze the historical development and current advancements of different forensic science disciplines such as forensic biology, anthropology/odontology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents	(ii) analyze the current advancements of different forensic science disciplines	History and Evolution of Forensic Science (Slides 32-43), Project-Modern Forensic Science Technology
(6) The Student explores the history of forensic science. The Student is expected to	(B) explain significant historical and modern contributions to	(i) explain significant historical contributions to the development of forensic science made by contributors	History and Evolution of Forensic Science (Slides 5-30), Activity-Forensic Science Timeline
(6) The Student explores the history of forensic science. The Student is expected to	(B) explain significant historical and modern contributions to the development and advancement of forensic science made by contributors such as Edmond Locard, Mathieu Orfila, Francis Galton, Edwin Henry, and Alec Jeffreys.	(ii) explain significant historical contributions to the advancement of forensic science made by contributors	History and Evolution of Forensic Science (Slides 5-30), Activity-Forensic Science Timeline
(6) The Student explores the history of forensic science. The Student is expected to	(B) explain significant historical and modern contributions to the development and advancement of forensic science made by contributors such as Edmond Locard, Mathieu Orfila, Francis Galton, Edwin Henry, and Alec Jeffreys.	(iii) explain significant modern contributions to the development of forensic science made by contributors	History and Evolution of Forensic Science (Slides 32-43), Project-Modern Forensic Science Technology
(6) The Student explores the history of forensic science. The Student is expected to	(B) explain significant historical and modern contributions to the development and advancement of forensic science made by contributors such as Edmond Locard, Mathieu Orfila, Francis Galton, Edwin Henry, and Alec Jeffreys.	(iv) explain significant modern contributions to the advancement of forensic science made by contributors	History and Evolution of Forensic Science (Slides 32-43), Project-Modern Forensic Science Technology
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(A) summarize the ethical standards required of a forensic science professional	(i) summarize the ethical standards required of a forensic science professional	Ethics in Forensic Science (Slides 5-6, 9-10), Student Handout-Code of Ethics, Activity-Forensic Scenarios
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(B) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	(i) identify terminology in the criminal justice system as [it pertains] to the chain of custody procedure for evidence	Evidence Collection: Laws and Regulation (Slides 7, 24-27), Activity-Chain of Custody Stations, Project-Chain of Custody Case
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(B) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	(ii) identify procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	Ethics in Forensic Science (Slide 26-28), Activity-Forensic Scenarios; Evidence Collection: Laws and Regulation (Slides 7, 24-27), Activity-Chain of Custody Stations, Project-Chain of Custody Case

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(B) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	(iii) explain knowledge of terminology employed in the criminal justice system as [it pertains] to the chain of custody procedure for evidence	Evidence Collection: Laws and Regulation (Slides 7, 24-27), Activity-Chain of Custody Stations, Project-Chain of Custody Case
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(B) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	(iv) explain knowledge of procedures employed in the criminal justice system as they pertain to the chain of custody procedure for evidence	Ethics in Forensic Science (Slide 26-28), Activity-Forensic Scenarios; Evidence Collection: Laws and Regulation (Slides 7, 24-27), Activity-Chain of Custody Stations, Project-Chain of Custody Case
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(C) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to expert witness testimony	(i) identify terminology employed in the criminal justice system as [it pertains] to expert witness testimony	Ethics in Forensic Science (Slides 38-50), Activity-Forensic Scenarios, Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(C) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to expert witness testimony	(ii) identify procedures employed in the criminal justice system as they pertain to expert witness testimony	Ethics in Forensic Science (Slides 38-50), Activity-Forensic Scenarios, Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(C) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to expert witness testimony	(iii) explain knowledge of terminology employed in the criminal justice system as [it pertains] to expert witness testimony	Ethics in Forensic Science (Slides 38-50), Activity-Forensic Scenarios, Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(C) identify and explain knowledge of terminology and procedures employed in the criminal justice system as they pertain to expert witness testimony	(iv) explain knowledge of procedures employed in the criminal justice system as they pertain to expert witness testimony	Ethics in Forensic Science (Slides 38-50), Activity-Forensic Scenarios, Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(i) research the effect of biases on evidence collection	Ethics in Forensic Science (Slides 29-30), Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(ii) research the effect of biases on forensic analysis	Ethics in Forensic Science (Slides 29-30), Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(iii) research the effect of biases on expert testimony	Ethics in Forensic Science (Slides 29-30), Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(iv) discuss the effect of biases on evidence collection	Ethics in Forensic Science (Slides 29-30), Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(v) discuss the effect of biases on forensic analysis	Ethics in Forensic Science (Slides 29-30), Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(D) research and discuss the effect of biases such as confirmation bias and framing cognitive bias on evidence collection, forensic analysis, and expert testimony	(vi) discuss the effect of biases on expert testimony	Ethics in Forensic Science (Slides 29-30), Activity-Effect of Biases
(7) The Student analyzes legal aspects within forensic science. The Student is expected to	(E) compare the admissibility of expert witness testimony in terms of the Frye Standard and the Daubert Standard under federal rules of evidence.	(i) compare the admissibility of expert witness testimony in terms of the Frye Standard and the Daubert Standard under federal rules of evidence.	Ethics in Forensic Science (Slides 42-43), Activity-Frye and Daubert Standards Bell Ringer; History and Evolution of Forensic Science (Slides 22-30)

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(8) The Student explores career options within forensic		(i) explore discipline-specific	STEM Careers: Forensic Science (Slides 17-24, 46-48), Project-
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Career Research, Activity-Job Posting Analysis Bell Ringer Bell
·	requirements, licensure, certifications, and physical and	science, including collegiate course	Ringer, Activity-Educational Opportunities
	mental capabilities	requirements	
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(ii) explore discipline-specific	STEM Careers: Forensic Science (Slide 33), Project-Career
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Research, Activity-Job Posting Analysis Bell Ringer, Activity-
·	requirements, licensure, certifications, and physical and	science, including licensure	Educational Opportunities
	mental capabilities		
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(iii) explore discipline-specific	STEM Careers: Forensic Science (Slides 26-28), Project-Career
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Research, Activity-Job Posting Analysis Bell Ringer, Activity-
	requirements, licensure, certifications, and physical and	science, including certifications	Educational Opportunities
	mental capabilities	_	
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(iv) explore discipline-specific	STEM Careers: Forensic Science (Slides 6-15), Project-Career
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Research, Activity-Job Posting Analysis Bell Ringer, Activity-
·	requirements, licensure, certifications, and physical and	science, including physical capabilities	Educational Opportunities
	mental capabilities		
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(v) explore discipline-specific	STEM Careers: Forensic Science (Slides 6-15, 51-65), Project-
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Career Research, Activity-Job Posting Analysis Bell Ringer,
·	requirements, licensure, certifications, and physical and	science, including mental capabilities	Activity-Educational Opportunities
	mental capabilities		
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(vi) describe discipline-specific	STEM Careers: Forensic Science (Slides 17-24, 46-48), Project-
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Career Research, Activity-Job Posting Analysis Bell Ringer,
·	requirements, licensure, certifications, and physical and	science, including collegiate course	Activity-Educational Opportunities
	mental capabilities	requirements	
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(vii) describe discipline-specific	STEM Careers: Forensic Science (Slide 33), Project-Career
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Research, Activity-Job Posting Analysis Bell Ringer, Activity-
·	requirements, licensure, certifications, and physical and	science, including licensure	Educational Opportunities
	mental capabilities		
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(viii) describe discipline-specific	STEM Careers: Forensic Science (Slides 26-28), Project-Career
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Research, Activity-Job Posting Analysis Bell Ringer, Activity-
	requirements, licensure, certifications, and physical and	science, including certifications	Educational Opportunities
	mental capabilities	_	
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(ix) describe discipline-specific	STEM Careers: Forensic Science (Slides 6-15), Project-Career
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Research, Activity-Job Posting Analysis Bell Ringer, Activity-
	requirements, licensure, certifications, and physical and	science, including physical capabilities	Educational Opportunities
	mental capabilities		
(8) The Student explores career options within forensic	(A) explore and describe discipline-specific requirements for	(x) describe discipline-specific	STEM Careers: Forensic Science (Slides 6-15, 51-65), Project-
science. The Student is expected to	careers in forensic science, including collegiate course	requirements for careers in forensic	Career Research, Activity-Job Posting Analysis Bell Ringer,
, i	requirements, licensure, certifications, and physical and	science, including mental capabilities	Activity-Educational Opportunities
	mental capabilities		
(8) The Student explores career options within forensic	(B) differentiate the roles and responsibilities of	(i) differentiate the roles and	STEM Careers: Forensic Science (Slides 6-15, 34-36, 46-48),
science. The Student is expected to	professionals in the criminal justice system, including	responsibilities of professionals in the	Activity-Job Posting Analysis Bell Ringer Bell Ringer, Activity-
:	forensic scientists, crime scene investigators, criminologists,	criminal justice system, including	Job Search, Activity-STEM Career Scavenger Hunt, Activity-
		forensic scientists, crime scene	STEM Careers Taboo Bell Ringer, Project-Career Research
	court systems personnel, and medicolegal death	lorensic scientists, crime scene	OTEN Careers raboo bell Kinger, I Toject-Career Research
	court systems personnel, and medicolegal death investigations	investigators, criminologists, court	To TEIN Gareers Taboo Bell Kinger, Troject-Gareer Kesearch
	, , ,	,	OTEM Careers Taboo Dell Milger, Troject-Career Nessearch
	, , ,	investigators, criminologists, court	OTEM Careers raboo ben runger, i roject-career research

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(8) The Student explores career options within forensic science. The Student is expected to	(C) differentiate the functions of various forensic science disciplines such as forensic biology, forensic chemistry, trace evidence, ballistics, fingerprints, digital forensics, and questioned documents.		Serology, Blood and Bodily Fluids - Student Handout-Discipline of Forensic Biology; Trace Evidence: Hair and Fiber - Introduction to Hair and Fiber Analysis Segment (1:36-2:08); Ballistics - Student Handout-Discipline of Ballistics, Project-Ballistics Case Study; Fingerprint and Impression Analysis - Introduction to Fingerprints Segment (1:32-1:56), Activity-Classroom Vandalism; Digital Forensics (Slide 7); Activity-Digital Crime Scenarios
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(A) explain the roles and tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies, and demonstrate the ability to work as a member of a crime scene team	(i) explain the roles needed to complete a crime scene examination, which may require collaboration with outside experts and agencies	Evidence Collection: Laws and Regulation (Slides 24-27), Student Handout-Processing and Analyzing Evidence, Activity- Chain of Custody Stations; Crime Scene Reports (Slides 8-12, 38-49), Project-Developing a Crime Scene Report
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(A) explain the roles and tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies, and demonstrate the ability to work as a member of a crime scene team	(ii) explain the tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies	Evidence Collection: Laws and Regulation (Slides 5-27), Student Handout-Processing and Analyzing Evidence; Evidence Collection: Procedures - Project-Evidence Collection at a Crime Scene; Crime Scene Reports (Slides 8-12)
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(A) explain the roles and tasks needed to complete a crime scene examination, which may require collaboration with outside experts and agencies, and demonstrate the ability to work as a member of a crime scene team		Evidence Collection: Laws and Regulation - Student Handout- Processing and Analyzing Evidence; Crime Scene Reports (Slides 38-47), Activity-Crime Scene Investigation Scenario
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(B) develop a detailed, technical written record based on observations and activities, documenting the crime scene examination	(i) develop a detailed, technical written record based on observations, documenting the crime scene examination	Crime Scene Reports (Slides 5-7, 17-36), Project-Developing a Crime Scene Report; Technical Writing in Forensic Science (Slides 5-31)
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(B) develop a detailed, technical written record based on observations and activities, documenting the crime scene examination	(ii) develop a detailed, technical written record based on activities, documenting the crime scene examination	Crime Scene Reports (Slides 17-36), Project-Developing a Crime Scene Report; Technical Writing in Forensic Science (Slides 5-31)
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(C) discuss the elements of criminal law that guide search and seizure of persons, property, and evidence	(i) discuss the elements of criminal law that guide search and seizure of persons	Evidence Collection: Laws and Regulation (Slides 29-34, 58-62), Activity-Probable Cause
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(C) discuss the elements of criminal law that guide search and seizure of persons, property, and evidence	(ii) discuss the elements of criminal law that guide search and seizure of property	Evidence Collection: Laws and Regulation (Slides 29-36, 40-42), Activity-Probable Cause
The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(C) discuss the elements of criminal law that guide search and seizure of persons, property, and evidence	(iii) discuss the elements of criminal law that guide search and seizure of evidence	Evidence Collection: Laws and Regulation (Slides 29-52), Activity-Chain of Custody Stations
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(D) conduct a primary and secondary systematic search of a simulated crime scene for physical evidence utilizing search patterns such as spiral, line, grid, and zone	(i) conduct a primary systematic search of a simulated crime scene for physical evidence utilizing search patterns	Evidence Collection: Procedures - Systematic Searches Segment (0:17-5:36), Activity-Where to Look
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	simulated crime scene for physical evidence utilizing search patterns such as spiral, line, grid, and zone	search of a simulated crime scene for physical evidence utilizing search patterns	Evidence Collection: Procedures - Systematic Searches Segment (0:17-5:36), Activity-Where to Look
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(E) document a crime scene using photographic or audiovisual equipment	(i) document a crime scene using photographic or audiovisual equipment	Crime Scene Photography (Slides 5-64), Activity-Crime Scene Evaluation, Activity-Investigate the Crime Scene, Project-Photography Basics

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(i) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points	Crime Scene Sketching (Slides 5-33), Project-Crime Scene Sketching
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(ii) generate a physical or digital crime scene sketch, including compass directions	Crime Scene Sketching (Slides 5-33), Project-Crime Scene Sketching
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(iii) generate a physical or digital crime scene sketch, including scale of proportion	Crime Scene Sketching (Slides 5-33, 36), Project-Crime Scene Sketching
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(iv) generate a physical or digital crime scene sketch, including legend-key	Crime Scene Sketching (Slides 5-35), Project-Crime Scene Sketching
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(v) generate a physical or digital crime scene sketch, including heading	Crime Scene Sketching (Slides 5-33), Project-Crime Scene Sketching
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(F) generate a physical or digital crime scene sketch, including coordinates or measurements from fixed points, compass directions, scale of proportion, legend-key, heading, and title block	(vi) generate a physical or digital crime scene sketch, including title block	Crime Scene Sketching (Slides 5-33), Project-Crime Scene Sketching
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(G) demonstrate proper techniques for collecting, packaging, and preserving physical evidence found at a crime scene while maintaining documentation, including chain of custody.	(i) demonstrate proper techniques for collecting physical evidence found at a crime scene while maintaining documentation, including chain of custody.	Evidence Collection: Procedures - Processing the Crime Scene Segment (4:47-7:22), Project-Evidence Collection at a Crime Scene, Project-Evidence Collection Procedures
The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(G) demonstrate proper techniques for collecting, packaging, and preserving physical evidence found at a crime scene while maintaining documentation, including chain of custody.	(ii) demonstrate proper techniques for packaging physical evidence found at a crime scene while maintaining documentation, including chain of custody.	Evidence Collection: Procedures - Packaging and Protecting the Evidence Segment (1:56-7:49), Project-Evidence Collection at a Crime Scene
(9) The Student recognizes the procedures of crime scene investigation while maintaining scene integrity. The Student is expected to	(G) demonstrate proper techniques for collecting, packaging, and preserving physical evidence found at a crime scene while maintaining documentation, including chain of custody.	(iii) demonstrate proper techniques for preserving physical evidence found at a crime scene while maintaining documentation, including chain of custody	Evidence Collection: Procedures - Packaging and Protecting the Evidence Segment (0:10-7:49), Project-Evidence Collection at a Crime Scene
(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(A) compare the three major fingerprint patterns of arches, loops, and whorls	(i) compare the three major fingerprint patterns of arches, loops, and whorls	Fingerprint and Impression Analysis - Anatomy of Fingerprints Segment (1:08-4:09), Activity-Label the Print
(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(B) identify the minutiae of fingerprints, including bifurcations, ending ridges, dots, short ridges, and enclosures/islands	(i) identify the minutiae of fingerprints, including bifurcations	Fingerprint and Impression Analysis - Anatomy of Fingerprints Segment (4:09-7:35), Activity-Label the Print, Activity-Print Minutiae
(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(B) identify the minutiae of fingerprints, including bifurcations, ending ridges, dots, short ridges, and enclosures/islands	(ii) identify the minutiae of fingerprints, including ending ridges	Fingerprint and Impression Analysis - Anatomy of Fingerprints Segment (4:09-5:30), Activity-Label the Print, Activity-Print Minutiae
(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(B) identify the minutiae of fingerprints, including bifurcations, ending ridges, dots, short ridges, and enclosures/islands	(iii) identify the minutiae of fingerprints, including dots	Fingerprint and Impression Analysis - Anatomy of Fingerprints Segment (5:36-5:43), Activity-Label the Print, Activity-Print Minutiae
(10) The Student analyzes fingerprint evidence in forensic science. The Student is expected to	(B) identify the minutiae of fingerprints, including bifurcations, ending ridges, dots, short ridges, and enclosures/islands	(iv) identify the minutiae of fingerprints, including short ridges	Fingerprint and Impression Analysis - Anatomy of Fingerprints Segment (5:36-5:43), Activity-Label the Print, Activity-Print Minutiae

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(10) The Student analyzes fingerprint evidence in	(B) identify the minutiae of fingerprints, including	(v) identify the minutiae of fingerprints,	Fingerprint and Impression Analysis - Anatomy of Fingerprints
forensic science. The Student is expected to	bifurcations, ending ridges, dots, short ridges, and	including enclosures/islands	Segment (5:47-5:54), Activity-Label the Print, Activity-Print
	enclosures/islands		Minutiae
(10) The Student analyzes fingerprint evidence in	(C) distinguish between patent, plastic, and latent	(i) distinguish between patent, plastic,	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	impressions	and latent impressions	Prints with Powder Segment (0:00-0:54), Activity-Classroom Vandalism
(10) The Student analyzes fingerprint evidence in	(D) perform procedures for developing and lifting latent	(i) perform procedures for developing	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	prints on nonporous surfaces using cyanoacrylate and	latent prints on nonporous surfaces	Prints with Chemicals Segment (0:37-2:09), Activity-Classroom
	fingerprint powders	using cyanoacrylate	Vandalism
(10) The Student analyzes fingerprint evidence in	(D) perform procedures for developing and lifting latent	(ii) perform procedures for lifting latent	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	prints on nonporous surfaces using cyanoacrylate and	prints on nonporous surfaces using	Prints with Chemicals Segment (0:37-2:09), Activity-Classroom
	fingerprint powders	cyanoacrylate	Vandalism
(10) The Student analyzes fingerprint evidence in	(D) perform procedures for developing and lifting latent	(iii) perform procedures for developing	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	prints on nonporous surfaces using cyanoacrylate and	latent prints on nonporous surfaces	Prints with Powder Segment (1:12-6:35), Activity-Classroom Vandalism
	fingerprint powders	using fingerprint powders	vandalism
(10) The Student analyzes fingerprint evidence in	(D) perform procedures for developing and lifting latent	(iv) perform procedures for lifting latent	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	prints on nonporous surfaces using cyanoacrylate and	prints on nonporous surfaces using	Prints with Powder Segment (1:12-6:35), Activity-Classroom
	fingerprint powders	fingerprint powders	Vandalism
(10) The Student analyzes fingerprint evidence in	(E) perform procedures for developing latent prints using	(i) perform procedures for developing	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	chemical processes on porous and adhesive surfaces with	latent prints using chemical processes	Prints with Chemicals Segment (1:05-5:33), Activity-Classroom
	chemicals such as ninhydrin and crystal violet and documenting the results via photography	on porous surfaces with chemicals	Vandalism
(10) The Student analyzes fingerprint evidence in	(E) perform procedures for developing latent prints using	(ii) perform procedures for developing	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	chemical processes on porous and adhesive surfaces with	latent prints using chemical processes	Prints with Chemicals Segment (1:05-5:33), Activity-Classroom
'	chemicals such as ninhydrin and crystal violet and	on adhesive surfaces with chemicals	Vandalism
	documenting the results via photography		
(10) The Student analyzes fingerprint evidence in	(E) perform procedures for developing latent prints using	(iii) perform procedures for	Fingerprint and Impression Analysis - Visualizing and Collecting
forensic science. The Student is expected to	chemical processes on porous and adhesive surfaces with	documenting the results via	Prints with Powder Segment (0:53-4:03), Activity-Classroom
	chemicals such as ninhydrin and crystal violet and	photography	Vandalism
	documenting the results via photography		
(10) The Student analyzes fingerprint evidence in	(F) explain the Integrated Automated Fingerprint	(i) explain the Integrated Automated	Fingerprint and Impression Analysis - Identifying and Comparing
forensic science. The Student is expected to	Identification System (IAFIS) and describe the implications	Fingerprint Identification System	Prints Segment (0:10-4:55), Project-Debating AFIS
	of Next Generation Identification (NGI) systems.	(IAFIS)	
(10) The Student analyzes fingerprint evidence in	(F) explain the Integrated Automated Fingerprint	(ii) describe the implications of Next	Fingerprint and Impression Analysis- Student Handout-Next
forensic science. The Student is expected to	Identification System (IAFIS) and describe the implications	Generation Identification (NGI)	Generation Identification System, Activity-NGI System Bell
	of Next Generation Identification (NGI) systems.	systems.	Ringer
(11) The Student collects and analyzes impression	(A) analyze the class and individual characteristics of tool	(i) analyze the class of tool mark	Tool Mark Analysis (Slides 8, 10-17), Activity-Creating Tool
evidence in forensic science. The Student is expected to	mark impressions and the recovery and documentation of	impressions	Marks
	surface characteristics such as wood or metal		
(11) The Student collects and analyzes impression	(A) analyze the class and individual characteristics of tool	(ii) analyze the individual	Tool Mark Analysis (Slides 9-17), Activity-Creating Tool Marks
evidence in forensic science. The Student is expected to	mark impressions and the recovery and documentation of	characteristics of tool mark	
	surface characteristics such as wood or metal	impressions	
(11) The Student collects and analyzes impression	(A) analyze the class and individual characteristics of tool	(iii) analyze the recovery of surface	Tool Mark Analysis (Slides 37-39), Activity-Creating Tool Marks
	mark impressions and the recovery and documentation of	characteristics [of toolmark	
'	surface characteristics such as wood or metal	impressions]	

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(A) analyze the class and individual characteristics of tool mark impressions and the recovery and documentation of surface characteristics such as wood or metal	(iv) analyze the documentation of surface characteristics [of tool mark impressions]	Tool Mark Analysis (Slides 34-35), Activity-Creating Tool Marks
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(B) analyze the class and individual characteristics of footwear impressions and the recovery and documentation of surface characteristics such as soil or organic plant material	(i) analyze the class of footwear impressions	Tool Mark Analysis (Slide 18), Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(B) analyze the class and individual characteristics of footwear impressions and the recovery and documentation of surface characteristics such as soil or organic plant material	(ii) analyze the individual characteristics of footwear impressions	Tool Mark Analysis (Slide 18), Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(B) analyze the class and individual characteristics of footwear impressions and the recovery and documentation of surface characteristics such as soil or organic plant material	(iii) analyze the recovery of surface characteristics [of footwear impressions]	Tool Mark Analysis (Slide 18), Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(B) analyze the class and individual characteristics of footwear impressions and the recovery and documentation of surface characteristics such as soil or organic plant material	(iv) analyze the documentation of surface characteristics [of footwear impressions]	Tool Mark Analysis- Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(C) analyze the class and individual characteristics of tire tread impressions and the recovery documentation of surface characteristics such as soil or organic plant material	(i) analyze the class of tire tread impressions	Tool Mark Analysis- Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(C) analyze the class and individual characteristics of tire tread impressions and the recovery documentation of surface characteristics such as soil or organic plant material	(ii) analyze the individual characteristics of tire tread impressions	Tool Mark Analysis- Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(C) analyze the class and individual characteristics of tire tread impressions and the recovery documentation of surface characteristics such as soil or organic plant material	(iii) analyze the recovery documentation of surface characteristics [of tire tread impressions]	Tool Mark Analysis- Student Handout-Footwear and Tire Tread Impression, Activity-Impression Analysis Bell Ringer
(11) The Student collects and analyzes impression evidence in forensic science. The Student is expected to	(D) compare impression evidence collected at a simulated crime scene with the known impression.	(i) compare impression evidence collected at a simulated crime scene with the known impression.	Tool Mark Analysis- Student Handout-Footwear and Tire Tread Impressions, Activity-Creating Tool Marks, Activity-Impression Analysis Bell Ringer
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(A) demonstrate how to collect hair and fiber evidence at a simulated crime scene	(i) demonstrate how to collect hair evidence at a simulated crime scene	Evidence Collection: Procedures - Trace Evidence Collection, Packaging and Submission Segment (0:10-1:50), Project-Evidence Collection on the Scene of a Crime
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(A) demonstrate how to collect hair and fiber evidence at a simulated crime scene	(ii) demonstrate how to collect fiber evidence at a simulated crime scene	Evidence Collection: Procedures - Trace Evidence Collection, Packaging and Submission Segment (1:50-3:10), Project- Evidence Collection on the Scene of a Crime
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(B) perform the analysis of hair and fiber evidence using forensic science methods such as microscopy and flame testing	(i) perform the analysis of hair evidence using forensic science methods	Trace Evidence: Hair and Fiber - Hair Preparation and Observation Segment (0:12-14:37), Activity-Observe Your Own Hair
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(B) perform the analysis of hair and fiber evidence using forensic science methods such as microscopy and flame testing	(ii) perform the analysis of fiber evidence using forensic science methods	Trace Evidence: Hair and Fiber - Natural and Man-Made Fibers Segment (0:12-14:30), Project-Fiber Distinguishing Characteristics

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(C) compare the microscopic characteristics of human hair and non-human hair, including medulla, pigment distribution, and scales	(i) compare the microscopic characteristics of human hair and non- human hair, including medulla	Trace Evidence: Hair and Fiber - Properties of Hair Segment (4:44-5:36), Project-Compare and Contrast
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(C) compare the microscopic characteristics of human hair and non-human hair, including medulla, pigment distribution, and scales	(ii) compare the microscopic characteristics of human hair and non- human hair, including pigment distribution	Trace Evidence: Hair and Fiber - Properties of Hair Segment (9:02-11:10), Project-Compare and Contrast
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(C) compare the microscopic characteristics of human hair and non-human hair, including medulla, pigment distribution, and scales	(iii) compare the microscopic characteristics of human hair and non- human hair, including scales	Trace Evidence: Hair and Fiber - Properties of Hair Segment (5:37-8:17), Project-Compare and Contrast
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(D) describe and illustrate the different microscopic characteristics used to determine the origin of a human hair sample	(i) describe the different microscopic characteristics used to determine the origin of a human hair sample	Trace Evidence: Hair and Fiber - Human Hair Segment (0:12-11:49), Activity-Observe Your Own Hair
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(D) describe and illustrate the different microscopic characteristics used to determine the origin of a human hair sample	(ii) illustrate the different microscopic characteristics used to determine the origin of a human hair sample	Trace Evidence: Hair and Fiber - Human Hair Segment (0:12-11:49), Activity-Observe Your Own Hair
(12) The Student recognizes the methods to process and analyze hair and fibers found in a crime scene. The Student is expected to	(E) differentiate between natural and synthetic fibers.	(i) differentiate between natural and synthetic fibers.	Trace Evidence: Hair and Fiber - Natural and Man-Made Fibers Segment (0:12-14:30), Project-Fiber Distinguishing Characteristics
(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(A) demonstrate how to collect and preserve glass evidence	(i) demonstrate how to collect glass evidence	Evidence Collection: Procedures - Trace Evidence Collection, Packaging and Submission Segment (3:10-4:24), Project- Evidence Collection on the Scene of a Crime
(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(A) demonstrate how to collect and preserve glass evidence	(ii) demonstrate how to preserve glass evidence	Evidence Collection: Procedures - Packaging and Protecting the Evidence Segment (1:57-4:41), Project-Evidence Collection at a Crime Scene
(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(B) compare the composition of various types of glass such as soda lime, borosilicate, leaded, and tempered	(i) compare the composition of various types of glass	Trace Evidence: Glass and Paint - Composition of Glass Segment (1:50-4:42), Activity-Finding Density
(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(C) determine the direction of a projectile by examining glass fractures	(i) determine the direction of a projectile by examining glass fractures	Trace Evidence: Glass and Paint - Composition of Glass Segment (5:32-8:48), Activity-Piece Together Glass Shards
(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(D) define refractive index and explain how it is used in forensic glass analysis.	(i) define refractive index	Trace Evidence: Glass and Paint - Identifying Glass Evidence Segment (1:39-1:47), Activity-Refractive Index Match
(13) The Student recognizes the methods to process and analyze glass evidence. The Student is expected to	(D) define refractive index and explain how it is used in forensic glass analysis.	(ii) explain how [refractive index] is used in forensic glass analysis	Trace Evidence: Glass and Paint - Identifying Glass Evidence Segment (1:58-4:17); Refractive Index of Glass Segment (0:14- 1:24), Activity-Refractive Index Match
(14) The Student explores principles of questioned document analysis in the physical and digital form. The Student is expected to	(A) research and explain different types of examinations performed on digital and physical evidence in a forensic laboratory such as digital data recovery, counterfeiting, ink, and paper analysis	(i) research different types of examinations performed on digital evidence in a forensic laboratory	Digital Forensics (Slides 55-62), Project-Digital Forensics Case
(14) The Student explores principles of questioned document analysis in the physical and digital form. The Student is expected to	(A) research and explain different types of examinations performed on digital and physical evidence in a forensic laboratory such as digital data recovery, counterfeiting, ink, and paper analysis	(ii) research different types of examinations performed on physical evidence in a forensic laboratory	Document Analysis: Materials (Slides 10-53), Project-Document Features, Activity- Debate It!
(14) The Student explores principles of questioned document analysis in the physical and digital form. The Student is expected to	(A) research and explain different types of examinations performed on digital and physical evidence in a forensic laboratory such as digital data recovery, counterfeiting, ink, and paper analysis	(iii) explain different types of examinations performed on digital evidence in a forensic laboratory	Digital Forensics (Slides 55-62), Project-Digital Forensics Case

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(16) The Student identifies controlled and illicit	(A) differentiate between toxicological analysis and	(i) differentiate between toxicological	Toxicology and Controlled Substances - Identifying Drugs Found
substances. The Student is expected to	, ,	analysis and controlled substance	at a Crime Scene Segment (0:23-1:37), Activity-Differences
	collection and impact on the body	analysis as they relate to the	Analysis Exit Ticket
		method of collection	
(16) The Student identifies controlled and illicit	(A) differentiate between toxicological analysis and	(ii) differentiate between toxicological	Toxicology and Controlled Substances - Effects of Toxins on the
substances. The Student is expected to	controlled substance analysis as they relate to the method of		Body Segment (0:20-4:10), Activity-Differences Analysis Exit
substances. The Student is expected to	collection and impact on the body	analysis as they relate to the impact	Ticket
	Collection and impact on the body	on the body	Ticket
		on the body	
(16) The Student identifies controlled and illicit	(B) classify controlled substances using the schedules under	(i) classify controlled substances using	Toxicology and Controlled Substances - Government Regulation
substances. The Student is expected to	the Controlled Substances Act	the schedules under the Controlled	of Controlled Substances Segment (0:15-9:04), Project-Drug
substances. The Student is expected to	the Controlled Substances Act	Substances Act	Research
(16) The Student identifies controlled and illicit	(C) identify unknown substances using presumptive and	(i) identify unknown substances using	Toxicology and Controlled Substances - Identifying Drugs Found
substances. The Student is expected to	confirmatory procedures such as microchemical/color	presumptive procedures	at a Crime Scene Segment (0:39-4:33), Student Handout-
substances. The Student is expected to	, ,	presumptive procedures	, ,,,
	indicating reagent field tests, microscopy, chromatography,		Reading Reports, Activity-Toxicology Drug Test
(40) The Ottoday identification and illinit	and spectrophotometry.	/::\ :-	Tarrianda and Cantarllad Calentary and Tarrianda and
(16) The Student identifies controlled and illicit	(C) identify unknown substances using presumptive and	(ii) identify unknown substances using	Toxicology and Controlled Substances - Toxicology
substances. The Student is expected to	confirmatory procedures such as microchemical/color	confirmatory procedures	Confirmatory Tests Segment (0:15-9:19), Student Handout-
	indicating reagent field tests, microscopy, chromatography,		Reading Reports, Activity-Toxicology Drug Test
(47) 71 00 1 1 1 1 1 1 1 1 1 1	and spectrophotometry.	(2)	
(17) The Student explores toxicology in forensic science.		(i) explain the absorption of toxins	Toxicology and Controlled Substances - Effects of Toxins on the
The Student is expected to	elimination of toxins such as alcohol, prescription drugs,	through the human body	Body Segment (1:18-3:13), Activity-Toxins in the Body
	controlled substances, and carbon monoxide through the		Presentation Exit Ticket
	human body		
(17) The Student explores toxicology in forensic science.		(ii) explain the distribution of toxins	Toxicology and Controlled Substances - Effects of Toxins on the
The Student is expected to	elimination of toxins such as alcohol, prescription drugs,	through the human body	Body Segment (1:18-1:27, 3:13-3:22), Activity-Toxins in the
	controlled substances, and carbon monoxide through the		Body Presentation Exit Ticket
(1 -1) - 1	human body		
(17) The Student explores toxicology in forensic science.	(A) explain the absorption, distribution, metabolization, and	(iii) explain the metabolization of toxins	Toxicology and Controlled Substances - Effects of Toxins on the
The Student is expected to	elimination of toxins such as alcohol, prescription drugs,	through the human body	Body Segment (1:18-1:27, 3:22-3:30), Activity-Toxins in the
	controlled substances, and carbon monoxide through the		Body Presentation Exit Ticket
	human body		
(17) The Student explores toxicology in forensic science.		(iv) explain the elimination of toxins	Toxicology and Controlled Substances - Effects of Toxins on the
The Student is expected to	elimination of toxins such as alcohol, prescription drugs,	through the human body	Body Segment (1:18-1:27, 3:30-3:45), Activity-Toxins in the Body Presentation Exit Ticket
	controlled substances, and carbon monoxide through the		
	human body		
(17) The Student explores toxicology in forensic science.	(B) describe presumptive and confirmatory laboratory	(i) describe presumptive laboratory	Toxicology and Controlled Substances - Identifying Drugs Found
The Student is expected to	procedures as they relate to toxicological analysis such as	procedures as they relate to	at a Crime Scene Segment (0:39-4:33), Presumptive Tests and
·	head space analysis, solid-phase extractions, gas	toxicological analysis	Extraction Methods Segment (0:15-4:51), Student Handout-
	chromatography-mass spectrometry (GC/MS), color tests,		Reading Reports, Activity-Toxicology Drug Test
	and immunoassays		
(17) The Student explores toxicology in forensic science.		(ii) describe confirmatory laboratory	Toxicology and Controlled Substances - Toxicology
The Student is expected to	procedures as they relate to toxicological analysis such as	procedures as they relate to	Confirmatory Tests Segment (0:15-9:19), Presumptive Tests
·	head space analysis, solid-phase extractions, gas	toxicological analysis	and Extraction Methods Segment (4:51-11:00), Student
	chromatography-mass spectrometry (GC/MS), color tests,	g,	Handout-Reading Reports, Activity-Toxicology Drug Test,
	and immunoassays		Activity-Dose vs. Size, Project-Drug Research
(17) The Student explores toxicology in forensic science.		(i) interpret results from presumptive	Toxicology and Controlled Substances - Identifying Drugs Found
The Student is expected to	laboratory procedures, including GC/MS and their	laboratory procedures, including	at a Crime Scene Segment (0:39-4:33), Presumptive Tests and
The oldden is expected to	implications	GC/MS	Extraction Methods Segment (0:35-4:35), Fresumptive resis and
		I COLIVIC	IEAGGOGO WOOGOOG OCCITICITE (U. 10-4.0 1), OLUGOITE HAIROUL
	···· ····		Reading Reports, Activity-Toxicology Drug Test

Overall TEKS

Forensic Science

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(17) The Student explores toxicology in forensic science. The Student is expected to	(C) interpret results from presumptive and confirmatory laboratory procedures, including GC/MS and their implications	(ii) interpret results from presumptive laboratory procedures, including [the results'] implications	Toxicology and Controlled Substances - Identifying Drugs Found at a Crime Scene Segment (0:39-4:33), Presumptive Tests and Extraction Methods Segment (0:15-4:51), Student Handout-Reading Reports, Activity-Toxicology Drug Test
(17) The Student explores toxicology in forensic science. The Student is expected to	(C) interpret results from presumptive and confirmatory laboratory procedures, including GC/MS and their implications	(iii) interpret results from confirmatory laboratory procedures, including GC/MS	Toxicology and Controlled Substances - Toxicology Confirmatory Tests Segment (0:15-9:19), Presumptive Tests and Extraction Methods Segment (4:51-11:00), Student Handout-Reading Reports, Activity-Toxicology Drug Test, Activity-Dose vs. Size, Project-Drug Research
(17) The Student explores toxicology in forensic science. The Student is expected to	laboratory procedures, including GC/MS and their implications	(iv) interpret results from confirmatory laboratory procedures, including [the results'] implications	Toxicology and Controlled Substances - Toxicology Confirmatory Tests Segment (0:15-9:19), Presumptive Tests and Extraction Methods Segment (4:51-11:00), Student Handout-Reading Reports, Activity-Toxicology Drug Test, Activity-Dose vs. Size, Project-Drug Research
(17) The Student explores toxicology in forensic science. The Student is expected to	(D) explain the precautions necessary in the forensic laboratory for proper preservation of biological samples.	(i) explain the precautions necessary in the forensic laboratory for proper preservation of biological samples	Evidence Collection: Procedures - Biological Evidence Collection, Packaging and Submission Segment (0:10-2:53), Project-Evidence Collection Procedures
(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to		(i) analyze blood stain patterns based on surface type in order to determine the mechanism by which the patterns are created	Blood Spatter (Slides 5-10), Project-Surface Texture Effects
(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to	(A) analyze blood stain patterns based on surface type and appearance such as size, shape, distribution and location in order to determine the mechanism by which the patterns are created	(ii) analyze blood stain patterns based on appearance in order to determine the mechanism by which the patterns are created	Blood Spatter (Slides 5-7, 11-24, 27-43 52-72), Activity-As A Matter of Spatter
(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to	(B) explain the methods of chemically enhancing latent blood patterns using reagents such as Blue Star or Amido Black	(i) explain the methods of chemically enhancing latent blood patterns using reagents	Blood Spatter (Slide 48), Activity-Chemical Enhancements Bell Ringer
(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to	(C) conduct and interpret blood presumptive tests for various biologicals such as phenolphthalein and tetramethylbenzidine (TMB).	(i) conduct blood presumptive tests for various biologicals	Serology, Blood and Body Fluids - Detecting Blood Segment (0:59-3:42), Activity-Blood Typing Analysis
(18) The Student analyzes blood spatter at a simulated crime scene. The Student is expected to	(C) conduct and interpret blood presumptive tests for various biologicals such as phenolphthalein and tetramethylbenzidine (TMB).	(ii) interpret blood presumptive tests for various biologicals	Serology, Blood and Body Fluids - Detecting Blood Segment (0:59-3:42), Activity-Preliminary Blood Tests
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(A) identify different types of biological samples and practice proper collection and preservation techniques	(i) identify different types of biological samples	Evidence Collection: Procedures - Biological Evidence Collection, Packaging and Submission Segment (0:10-2:53), Project-Evidence Collection at a Crime Scene
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(A) identify different types of biological samples and practice proper collection and preservation techniques	(ii) practice proper collection techniques [of biological samples]	Evidence Collection: Procedures - Biological Evidence Collection, Packaging and Submission Segment (1:09-2:53), Project-Evidence Collection at a Crime Scene
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(A) identify different types of biological samples and practice proper collection and preservation techniques	(iii) practice proper preservation techniques [of biological samples]	Evidence Collection: Procedures - Biological Evidence Collection, Packaging and Submission Segment (0:10-2:53), Project-Evidence Collection at a Crime Scene
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(B) identify the red blood cell antigens and antibodies as they relate to human blood types	(i) identify the red blood cell antigens as they relate to human blood types	Serology, Blood and Body Fluids - Analyzing Blood Segment (0:56-6:25), Activity-Blood Typing Analysis

Overall TEKS

Forensic Science

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(B) identify the red blood cell antigens and antibodies as they relate to human blood types	(ii) identify the red blood cell antibodies as they relate to human blood types	Serology, Blood and Body Fluids - Detecting Blood Segment (3:48-8:20), Analyzing Blood Segment (1:45-6:25), Activity- Blood Typing Analysis
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(C) describe the structure of a deoxyribonucleic acid (DNA) molecule and its function	(i) describe the structure of a deoxyribonucleic acid (DNA) molecule	DNA Analysis - What is DNA? Segment (0:57-4:41), Project- DNA Model
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(C) describe the structure of a deoxyribonucleic acid (DNA) molecule and its function	(ii) describe the function [of a DNA molecule]	DNA Analysis - Introduction to DNA Analysis Segment (1:08-2:22), Project-DNA Model
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(D) explain the analytical procedure for generating a DNA profile, including extraction, quantification, amplification, and capillary electrophoresis	(i) explain the analytical procedure for generating a DNA profile, including extraction	DNA Analysis - Extracting DNA Segment (0:30-0:58, 2:41-3:07, 12:27-13:11, 14:36-14:58), Activity-Strawberry Extraction
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to		(ii) explain the analytical procedure for generating a DNA profile, including quantification	DNA Analysis - Short Tandem Repeats Segment (3:26-3:52), Activity-Strawberry Extraction
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	capillary electrophoresis	(iii) explain the analytical procedure for generating a DNA profile, including amplification	DNA Analysis - Short Tandem Repeats Segment (3:52-4:30), Activity-Strawberry Extraction
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	capillary electrophoresis	(iv) explain the analytical procedure for generating a DNA profile, including capillary electrophoresis	DNA Analysis - Short Tandem Repeats Segment (4:39-5:06), Activity-Strawberry Extraction
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(E) explain the different methodologies surrounding the different types of DNA analysis such as short tandem repeats (STRs), Y-STRs, mitochondrial DNA, and single nucleotide polymorphisms (SNPs)	(i) explain the different methodologies surrounding the different types of DNA analysis	DNA Analysis - Restriction Fragment Length Polymorphism Segment (0:16-3:37), DNA Replication and Polymerase Chain Reaction Segment (0:16-12:59), Short Tandem Repeats Segment (0:16-5:06), Single Nucleotide Polymorphisms Segment (0:16-9:00), Activity-RFLP, Activity-Strawberry Extraction, Project-CODIS and Genetics
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	(F) interpret the components of an electropherogram	(i) interpret the components of an electropherogram	DNA Analysis - Electrophoresis Segment (0:16-13:51) Activity- RFLP
(19) The Student analyzes the foundations and methodologies surrounding the processing of biological evidence for the purpose of identification. The Student is expected to	, , ,	(i) explore the databasing systems associated with DNA	DNA Analysis - Introduction to DNA Analysis Segment (4:05-4:37), Single Nucleotide Polymorphisms Segment (0:15-1:04), Project-CODIS and Genetics
(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(A) explain the principles of rigor, algor, and livor mortis and how they apply to deceased persons	(i) explain the [principle] of rigor mortis	Decomposition Analysis (Slides 8-13, 39), Activity-Rigor, Algor and Livor Mortis Infographic
(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(A) explain the principles of rigor, algor, and livor mortis and how they apply to deceased persons	(ii) explain the [principle] of algor mortis	Decomposition Analysis (Slides 8, 17-20, 39), Activity-Rigor, Algor and Livor Mortis Infographic
(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	how they apply to deceased persons	(iii) explain the [principle] of livor mortis	Decomposition Analysis (Slides 8, 14-16, 36-38), Activity-Rigor, Algor and Livor Mortis Infographic
(20) The Student explores the principles surrounding medicolegal death investigations. The Student is expected to	(A) explain the principles of rigor, algor, and livor mortis and how they apply to deceased persons	(iv) explain how [rigor mortis applies] to deceased persons	Decomposition Analysis (Slides 8-13, 39), Activity-Rigor, Algor and Livor Mortis Infographic

Overall TEKS

Forensic Science

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(20) The Student explores the principles surrounding	(A) explain the principles of rigor, algor, and livor mortis and	(v) explain how [algor mortis applies] to	Decomposition Analysis (Slides 8, 17-20, 39), Activity-Rigor.
medicolegal death investigations. The Student is	how they apply to deceased persons	deceased persons	Algor and Livor Mortis Infographic
expected to		·	
(20) The Student explores the principles surrounding	(A) explain the principles of rigor, algor, and livor mortis and	(vi) explain how [livor mortis applies] to	Decomposition Analysis (Slides 8, 14-16, 36-38), Activity-Rigor,
medicolegal death investigations. The Student is	how they apply to deceased persons	deceased persons	Algor and Livor Mortis Infographic
expected to			
(20) The Student explores the principles surrounding	(B) differentiate between the types of wound patterns such	(i) differentiate between the types of	Death Investigations (Slides 13-15, 32-50), Activity-Identifying
medicolegal death investigations. The Student is	as lacerations and blunt force trauma resulting from	wound patterns resulting from	Cause of Death
expected to	stabbings, bludgeoning, gunshots, and strangulations	stabbings, bludgeoning, gunshots, and	
		strangulations	
(20) The Student explores the principles surrounding	(C) determine cause and manner of death from an autopsy	(i) determine cause of death from an	Death Investigations (Slides 13-15, 32-34), Autopsy Process
medicolegal death investigations. The Student is	report obtained through resources such as case studies,	autopsy report obtained through	(Slides 41-52), Activity-Examining an Autopsy Report Bell
expected to	simulated autopsies, and dissections	resources	Ringer
(20) The Student explores the principles surrounding	(C) determine cause and manner of death from an autopsy	(ii) determine manner of death from an	Death Investigations (Slides 13-15, 32-34), Autopsy Process
medicolegal death investigations. The Student is		autopsy report obtained through	(Slides 41-52), Activity-Examining an Autopsy Report Bell
expected to	simulated autopsies, and dissections	resources	Ringer
(20) The Student explores the principles surrounding	(D) determine the approximate time of death using	(i) determine the approximate time of	Decomposition Analysis (Slides 34-35), Forensic Entomology
medicolegal death investigations. The Student is	entomology.	death using entomology	(Slides 22-25), Project-Forensic Entomology Case Study,
expected to			Activity-Time of Death
	(A) identify the major bones of the human skeletal system	(i) identify the major bones of the	Forensic Anthropology and Odontology - The Skeletal System
odontology relevant to forensic science. The Student is		human skeletal system	Segment (2:03-5:26), Activity-Identifying the Bones in the Body
expected to			
, , , , , , , , , , , , , , , , , , , ,	(B) compare composition and structure of human and non-	()	Forensic Anthropology and Odontology - Identification of
odontology relevant to forensic science. The Student is	human bones;	non-human bones	Remains Segment (2:28-4:43), Activity-Bones Venn Diagram
expected to	(D) compare compacition and atmost up of human and non	(ii) sampara atmesture of human and	Bell Ringer Forensic Anthropology and Odontology - Identification of
odontology relevant to forensic science. The Student is	(B) compare composition and structure of human and non- human bones;	(ii) compare structure of human and non-human bones	Remains Segment (2:28-4:43), Activity-Bones Venn Diagram
expected to	numan bones,	non-numan bones	Bell Ringer
(21) The Student explores principles of anthropology and	(C) describe the collection and preservation methods for	(i) describe the collection methods for	Evidence Collection: Procedures - Anthropological Evidence
odontology relevant to forensic science. The Student is	bone evidence;	bone evidence	Collection, Packaging and Submission Segment (1:38-2:52),
expected to	bone evidence,	bone evidence	Project-Evidence Collection at a Crime Scene
(21) The Student explores principles of anthropology and	(C) describe the collection and preservation methods for	(ii) describe the preservation methods	Evidence Collection: Procedures - Anthropological Evidence
odontology relevant to forensic science. The Student is	bone evidence;	for bone evidence	Collection, Packaging and Submission Segment (1:38-2:52),
expected to	bono ovidence,	lor bono ovidoneo	Project-Evidence Collection at a Crime Scene
	(D) explain the characteristics of the human skeletal system	(i) explain the characteristics of the	Forensic Anthropology and Odontology - Determining Sex
odontology relevant to forensic science. The Student is	indicative of specific biological sex and approximate range	human skeletal system indicative of	Segment (0:44-7:27), Project-Developing an Anthropological
expected to	of age and height; and	specific biological sex	Profile
(21) The Student explores principles of anthropology and	(D) explain the characteristics of the human skeletal system	(ii) explain the characteristics of the	Forensic Anthropology and Odontology - Determining Age and
odontology relevant to forensic science. The Student is	indicative of specific biological sex and approximate range	human skeletal system indicative of	Height Segment (0:16-4:33), Project-Developing an
expected to	of age and height; and	approximate range of age	Anthropological Profile
(21) The Student explores principles of anthropology and	(D) explain the characteristics of the human skeletal system	(iii) explain the characteristics of the	Forensic Anthropology and Odontology - Determining Age and
odontology relevant to forensic science. The Student is	indicative of specific biological sex and approximate range	human skeletal system indicative of	Height Segment (4:34-5:36), Project-Developing an
expected to	of age and height; and	approximate range of height	Anthropological Profile
(21) The Student explores principles of anthropology and	(E) explain how human remains are identified through dental		Forensic Anthropology and Odontology - Careers in Forensic
odontology relevant to forensic science. The Student is	records such as dentures, x-rays, and implants.	identified through dental records	Anthropology and Odontology Segment (3:16-4:31), Forensic
expected to			Odontology Segment (0:16-5:07), Project-Dental Records

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(A) use prior knowledge and experiences to understand meanings in English	(i) use prior knowledge to understand meanings in English	English Applications (Slides 5-24 and 26); Activity - Deconstructing Words, Activity - Vocabulary Catchphrase
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(A) use prior knowledge and experiences to understand meanings in English	(ii) use prior experiences to understand meanings in English	English Applications (Slides 5-24 and 26); Activity - Deconstructing Words, Activity - Vocabulary Catchphrase, Project - Vocabulary Comic
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet grade level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	B) monitor oral and written language production and employ self-corrective techniques or other resources	(i) monitor oral language production and employ self corrective techniques or other resources	English Applications (Slides 5-24, 26-34 and 39-44); Activity - Class Discussion, Project - Vocabulary Comic, Activity - Photo Essay, Activity - Teach Your Classmates
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(D) speak using learning strategies such as requesting assistance, employing non-verbal cues, and using synonyms and circumlocution (conveying ideas by defining or describing when exact English words are not known)	(i) speak using learning strategies	English Applications (Slides 43-44); Activity - Deconstructing Words, Activity - Vocabulary Catchphrase, Activity - Class Discussion
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(E) internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment	(i) internalize new basic language by using and reusing it in meaningful ways in speaking activities that build concept and language attainment	English Applications (Slides 5-24 and 43-44); Activity - Class Discussion, Activity - Pre-Reading, Activity - Reading, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(E) internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment	(ii) internalize new basic language by using and reusing it in meaningful ways in writing activities that build concept and language attainment	English Applications (Slides 5-24 and 46-82); Activity - Class Discussion, Activity - Pre-Reading, Activity - Reading, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(E) internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment	(iii) internalize new academic language by using and reusing it in meaningful ways in speaking activities that build concept and language attainment	English Applications (Slides 5-24 and 43-44); Activity - Class Discussion, Activity - Pre-Reading, Activity - Reading, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet gradelevel learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(E) internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment	(iv) internalize new academic language by using and reusing it in meaningful ways in writing activities that build concept and language attainment	English Applications (Slides 5-24 and 46-82); Activity - Class Discussion, Activity - Pre-Reading, Activity - Reading, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase
(1) Cross-curricular second language acquisition/learning strategies. The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet grade level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(F) use accessible language and learn new and essential language in the process	(i) use accessible language and learn new and essential language in the process	English Applications (Slides 5-24 and 46-82); Activity - Deconstructing Words, Activity - Spelling With IPA, Activity - Teach Your Classmates
(2) Cross-curricular second languageacqu isition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(C) learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions	(i) learn new language structures heard during classroom instruction and interactions	English Applications (Slides 5-24 and 36-44); Activity - Class Discussion, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase, Project - Vocabulary Comic
(2) Cross-curricular second languageacqu isition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(C) learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions	(ii) learn new expressions heard during classroom instruction and interactions	English Applications (Slides 36-44); Activity - Class Discussion, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(2) Cross-curricular second languageacqu isition/listening. The ELL listens	(C) learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions		English Applications (Slides 5-24); Activity - Vocabulary Catchphrase, Activity - Class Discussion
(2) Cross-curricular second languageacqu isition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(C) learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions	(iv) learn academic vocabulary heard during classroom instruction and interactions	English Applications (Slides 5-24); Activity - Vocabulary Catchphrase, Activity - Class Discussion
(2) Cross-curricular second languageacqu isition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(D) monitor understanding of spoken language during classroom instruction and interactions and seek clarification as needed	(i) monitor understanding of spoken language during classroom instruction and interactions	English Applications (Slides 5-24 and 26-34); Activity - Deconstructing Words, Activity - Class Discussion, Activity Teach Your Classmates
(2) Cross-curricular second languageacqu isition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(D) monitor understanding of spoken language during classroom instruction and interactions and seek clarification as needed	(ii) seek clarification [of spoken language] as needed	English Applications (Slides 5-24 and 26-34); Activity - Deconstructing Words, Activity - Class Discussion
(2) Cross-curricular second languageacqu isition/listening. The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(E) use visual, contextual, and linguistic support to enhance and confirm understanding of increasingly complex and elaborated spoken language	(iii) use linguistic support to enhance and confirm understanding of increasingly complex and elaborated spoken language	English Applications (Slides 5-24 and 26-34); Activity - Deconstructing Words, Activity - Class Discussion

Eligibil Ealiguage I Tolicielley o			
Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In	(I) demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs	(i) demonstrate listening comprehension of increasingly complex spoken English by following directions commensurate with content and grade- level needs	English Applications (Slides 36-44); Activity - Class Discussion
to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In	(I) demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs	(iii) demonstrate listening comprehension of increasingly complex spoken English by responding to questions and requests commensurate with content and grade-level needs	English Applications (Slides 36-44); Activity - Class Discussion
to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In	(I) demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs		English Applications (Slide 5-24 and 36-44); Activity - Class Discussion, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase
to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In	(I) demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs	(v) demonstrate listening comprehension of increasingly complex spoken English by taking notes commensurate with content and gradelevel needs	English Applications (Slides 36-44); Activity - Class Discussion

Linguish Language Proficiency 3			
Knowledge and Skill Statement (3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(B) expand and internalize initial English vocabulary by learning and using high-frequency English words necessary for identifying and describing people, places, and objects, by retelling simple stories and basic information represented or supported by pictures, and by learning and using routine language needed for classroom communication	Breakout (ii) expand and internalize initial English vocabulary by retelling simple stories and basic information represented or supported by pictures	iCEV English Applications (Slides 5-24 and 30); Activity - Class Discussion, Project - Vocabulary Comic
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(B) expand and internalize initial English vocabulary by learning and using high-frequency English words necessary for identifying and describing people, places, and objects, by retelling simple stories and basic information represented or supported by pictures, and by learning and using routine language needed for classroom communication	(iii) expand and internalize initial English vocabulary by learning and using routine language needed for classroom communication	English Applications (Slides 5-24 and 43-44); Activity - Class Discussion, Project - Vocabulary Comic
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(D) speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency	(i) speak using grade-level content area vocabulary in context to internalize new English words	English Applications (Slides 5-24 and 43-44); Activity - Class Discussion
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(D) speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency	(ii) speak using grade-level content area vocabulary in context to build academic language proficiency	English Applications (Slides 5-24 and 43-44); Activity - Class Discussion

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(E) share information in cooperative learning interactions	(i) share information in cooperative learning interactions	English Applications (Slides 36-44); Activity - Class Discussion
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(F) ask and give information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments	(i) ask [for] information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments	English Applications (Slides 5-24); Activity - Class Discussion
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(F) ask and give information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments	(ii) give information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments	English Applications (Slides 5-24); Activity - Class Discussion
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(G) express opinions, ideas, and feelings ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade-appropriate academic topics	(i) express opinions ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade appropriate academic topics	English Applications (Slides 5-24, 36-44 and 46-82); Activity - Class Discussion, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(G) express opinions, ideas, and feelings ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade-appropriate academic topics	(ii) express ideas ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade appropriate academic topics	English Applications (Slides 5-24, 36-44 and 46-82); Activity - Class Discussion, Activity - Teach Your Classmates, Activity - Vocabulary Catchphrase
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(H) narrate, describe, and explain with increasing specificity and detail as more English is acquired	(ii) describe with increasing specificity and detail as more English is acquired	English Applications (Slides 5-24 and 26-34); Activity - Class Discussion, Project - Annotated Bibliography
(3) Cross-curricular second language acquisition/speaking. The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:	(H) narrate, describe, and explain with increasing specificity and detail as more English is acquired	(iii) explain with increasing specificity and detail as more English is acquired	English Applications (Slides 5-24 and 26-34); Activity - Class Discussion, Project - Annotated Bibliography
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(C) develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials	(i) develop basic sight vocabulary used routinely in written classroom materials	English Applications (Slides 5-24); Activity - Class Discussion, Activity - Decoding An Assignment Sheet

Linguish Language Proficiency 3			
Knowledge and Skill Statement (4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	Student Expectation (C) develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials		iCEV English Applications (Slides 5-24 and 26-34), Activity - Class Discussion, Activity - Decoding An Assignment Sheet
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(C) develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials	(iii) comprehend English vocabulary used routinely in written classroom materials	English Applications (Slides 5-24); Activity - Class Discussion, Activity - Decoding An Assignment Sheet
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(C) develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials	(iv) comprehend English language structures used routinely in written classroom materials	English Applications (Slides 46-82); Activity - Decoding An Assignment Sheet
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(D) use prereading supports such as graphic organizers, illustrations, and pretaught topic-related vocabulary and other prereading activities to enhance comprehension of written text		English Applications (Slides 26-34 and 46-82); Activity - Pre-Reading

English Eanguage Frontieries o	taridards (EEI O)		
Knowledge and Skill Statement (4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	Student Expectation (E) read linguistically accommodated content area material with a decreasing need for linguistic accommodations as more English is learned	Breakout (i) read linguistically accommodated content area material with a decreasing need for linguistic accommodations as more English is learned	iCEV English Applications (Slides 5-24 and 26-34); Activity - Pre-Reading, Activity - Reading, Project - Annotated Bibliography
intermediate, advanced, or advanced high stage of English language	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	(i) use visual and contextual support to read grade-appropriate content area text	English Applications (Slides 26-34); Activity - Reading
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language		English Applications (Slides 26-34 and 46-82); Activity - Reading
comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	(iii) use visual and contextual support to develop vocabulary needed to comprehend increasingly challenging language	English Applications (Slides 5-24); Activity - Reading

Linguish Language Proficiency 3			
Knowledge and Skill Statement (4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	Breakout (v) use visual and contextual support to develop background knowledge needed to comprehend increasingly challenging language	iCEV English Applications (Slides 5-24, 26-34 and 46-82); Activity - Reading, Activity - Class Discussion
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	(vi) use support from peers and teachers to read grade-appropriate content area text	English Applications (Slides 26-34); Activity - Reading, Activity - Class Discussion
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	(vii) use support from peers and teachers to enhance and confirm understanding	English Applications (Slides 5-24, 26-34 and 36-44); Activity - Reading, Activity - Class Discussion
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	(viii) use support from peers and teachers to develop vocabulary needed to comprehend increasingly challenging language	English Applications (Slides 5-24 and 26-34); Activity - Reading, Activity - Class Discussion

Linguish Language Proficiency 3			
Knowledge and Skill Statement (4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	Student Expectation (F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	Breakout (ix) use support from peers and teachers to develop grasp of language structures needed to comprehend increasingly challenging language	iCEV English Applications (Slides 5-24 and 26-34); Activity - Reading, Activity - Class Discussion
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(F) use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language	(x) use support from peers and teachers to develop background knowledge needed to comprehend increasingly challenging language	English Applications (Slides 5-24 and 26-34); Activity - Reading, Activity - Class Discussion
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(G) demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs	(ii) demonstrate comprehension of increasingly complex English by retelling or summarizing material commensurate with content area and grade level needs	English Applications (Slides 5-24, 26-34 and 43-44); Activity - Reading, Activity - Class Discussion
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:	(G) demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs	(iii) demonstrate comprehension of increasingly complex English by responding to questions commensurate with content area and grade level needs	English Applications (Slides 5-24); Activity - Class Discussion

Knowledge and Skill Statement	Student Expectation	Breakout	iCEV
(4) Cross-curricular second language acquisition/reading. The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language	(G) demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs	(iv) demonstrate comprehension of	English Applications (Slides 5-24 and 46-82); Key Concepts
	(B) write using newly acquired basic vocabulary and content-based grade-level vocabulary		English Applications (Slides 5-24); Activity - Vocabulary Catchphrase, Activity - Class Discussion, Activity - Deconstructing Words
(5) Cross-curricular second language acquisition/writing. The ELL writes in a variety of forms with increasing accuracy to effectively address a specific purpose and audience in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in writing. In order for the ELL to meet grade-level learning expectations across foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For kindergarten and first grade, certain of these student expectations do not apply until the student has reached the stage of generating original written text using a standard writing system. The student is expected to:	(B) write using newly acquired basic vocabulary and content-based grade-level vocabulary		English Applications (Slides 5-24); Activity - Vocabulary Catchphrase, Activity - Class Discussion, Activity - Deconstructing Words

General Classroom Equipment	Amount	Activity/Project Name
Drawing Materials (such as crayons, markers, colored pencils)	classroom set	
Crafting Materials (such as scissors, construction paper, glue)	classroom set	
Safety Goggles	classroom set	
Lab coat	classroom set	
Gloves	classroom set	
Graphing paper	classroom set	
Notecards	classroom set	
Microscope	classroom set	
Microscope slides	classroom set	
Poster paper or presentation boards	classroom set	
Tools in Forensic Science	Amount	Activity/Project Name
	amount/number will vary depending on	Project- Forensic Science
A variety of tools used for forensic science from the classroom	class size	Tools in Your Classroom
Conducting Lab & Field Investigations: Forensic Science	Amount	Activity/Project Name
Cardboard	1 piece per group	
Plastic Knife	1 per group	1
Shallow Paper Cup	1 per group	1
Aluminum Foil	1 piece per group	Activity- Scientific Method Mini
Heat Lamp	1 per group or every few groups	Lab
Large plastic food container with lid	1 per group	1
Cotton rounds or cotton ball	1 per group	1
Super glue	1 bottle per group	
Developing a Model: Forensic Science	Amount	Activity/Project Name
Plastic cover slip	1 per group	Activity- Developing a Model

Evidence Collection: Procedures	Amount	Activity/Project Name
A variety of pieces of evidence	10-15 pieces	
Evidence markers	15- 20 for the class	
Tweezers	10- 15 for the class	Project- Evidence Collection at
Tamper-evident tape	A few rolls	a Crime Scene
Paper evidence bags	15- 20 for the class	
Plastic Bags	15- 20 for the class	
Serology, Blood & Bodily Fluids	Amount	Activity/Project Name
Milk	2 cups	
Red & Green Food Coloring	1- 2 bottles of each	
Small dropper bottles	18	
Small sampling cups	18	Activity- Blood Typing Analysis
Permanent Markers	6	
Vinegar	1 bottle	
Small plastic storage containers	6	
Labels for bottles and containers	30	
Ballistics	Amount	Activity/Project Name
Materials for students to illustrate firing mechanisms, such as clay		Project- Firing Mechanisms
models, nerf guns, etc.	1 per group	Project- Filling Mechanisms
Blood Spatter	Amount	Activity/Project Name
Tropical fruit punch	1/2 cup per group	
Corn syrup	1 cup per group	
Liquid red food coloring	2 tablespoons per group	Activity- As a Matter of Spatter
Chocolate syrup	1 tablespoon per group	
Cornstarch	2 tablespoons per group	
Powdered cocoa	1 tablespoon per group	
Blender	1 per group or every few groups	
Paper towels	A few rolls	

Blood Spatter	Amount	Activity/Project Name
Tropical fruit punch	1/2 cup per group	
Corn syrup	1 cup per group	
Liquid red food coloring	2 tablespoons per group	
Chocolate syrup	1 tablespoon per group	
Cornstarch	2 tablespoons per group	Activity- Does Distance
Powdered cocoa	1 tablespoon per group	Matter?
Blender	1 per group or every few groups	
Paper towels	A few rolls	
Large sheet of white paper	1 per group	
Syringe, spoon or other available tool	1 per group	
Tropical fruit punch	1/2 cup per group	
Corn syrup	1 cup per group	
Liquid red food coloring	2 tablespoons per group	
Chocolate syrup	1 tablespoon per group	
Cornstarch	2 tablespoons per group	
Powdered cocoa	1 tablespoon per group	
Blender	1 per group or every few groups	Project- Find the Orgin
Paper towels	A few rolls	
Large sheet of white paper	1 per group	
String	1 per group	
Calculator	1 per group	
Protractor	1 per group	
Yardstick, ruler or measuring tape	1 per group	

Blood Spatter	Amount	Activity/Project Name
Tropical fruit punch	1/2 cup per group	
Corn syrup	1 cup per group	1
Liquid red food coloring	2 tablespoons per group	
Chocolate syrup	1 tablespoon per group	
Cornstarch	2 tablespoons per group	Project- Surface Texture
Powdered cocoa	1 tablespoon per group	Effects
Blender	1 per group or every few groups	
Paper towels	A few rolls	
Surface materials (cardboard, copy paper, foam board, fabric, glass,		
wood, carpet, etc.)	5 per group	
Toxicology & Controlled Substances	Amount	Activity/Project Name
Food coloring (suggested: blue, yellow)	1 bottle each	Activity- Dose vs. Size
50 mL beakers	6	
250 mL beaker	1	
600 mL beaker	1	
Dropper bottles	10 per group	
Phenolphthalein	3 mL per group	
Lead (II) nitrate	3 mL per group	
Bromthymol blue	3 mL per group	Activity- Toxicology Drug Test
NaOH	6 mL per group	
Sodium carbonate	3 mL per group	
HCI	3 mL per group	
Calcium chloride	3 mL per group	
Sodium iodide	3 mL per group	
Silver nitrate	3 mL per group]
Micro-wells tray	1 per group]

DNA Analysis	Amount	Activity/Project Name	
Rubbing alcohol	1 container per group		
Cheese cloth	1 per group]	
Strawberry	1 per group		
Plastic bag	1 per group		
Funnel	1 per group		
Test tube	1 per group	Activity- Strawberry Extraction	
Measuring cylinder	1 per group		
Scale	1 per group		
Wooden skewer	1 per group		
Salt	0.75 g per group		
Liquid dish soap	5 mL per group		
Materials to build models	each group	Project- DNA Model	
Tool Mark Analysis	Amount	Activity/Project Name	
Play-Doh ® or its equivalent	5	Activity Creating Teel Marks	
Sets of tools to create impressions	5	Activity- Creating Tool Marks	
Fingerprint & Impression Analysis	Amount	Activity/Project Name	
Ink pad	1 per group	Activity- Classifying Prints	
Sticky tack or other adhesive surfaces	Amount can vary		
Large sharpie	1		
Large sheets of paper or other porous surfaces	Amount can vary]	
Glass bottles or cans or other non-porous surfaces	Amount can vary		
Ink pad	1		
Optional:			
Toilet paper and other items which could be used to vandalize your		Activity- Classroom Vandalism	
classroom	Amount can vary		
Sealable plastic evidence bags	2 per group		
Flashlight	1 per group		
Fingerprint powder	1 per group		
Fingerprint brush	1 per group		
Airtight jar or container	1 per group		

Fingerprint & Impression Analysis	Amount	Activity/Project Name
Super glue (must contain cyanoacrylate chemical)	1 per group	
Hot plate Aluminum foil	1 per group Amount can vary	Activity- Classroom Vandalism
Trace Evidence: Glass & Paint	Amount	Activity/Project Name
Clay	Enough for each group	
Plastic wrap	Amount may vary	
X-Acto ®	1	Activity- Examine Paint Chips
Wall paint	Several colors	
Paint chip	1 per group	
Different types of glass which could include: Flat glass, Colored glass, Safety glass, Glass bottles, Pyrex, Lenses Measuring test tube beakers (one needs to fit into the second)	Amount can vary 1 per group 2 per group	Activity- Finding Density
50 mL clear beakers	3 per group	
Pyrex ® stirring rod	1 per group	Activity- Refractive Index
50 mL of olive oil	per group	Match
50 mL caster oil	per group	
Document Analysis: Forgery & Counterfeiting	Amount	Activity/Project Name
Oblique light	1	Activity- Invisible Light
Document Analysis: Materials	Amount	Activity/Project Name
Different water-soluble black markers	3 per group	
Four-inch by one-inch strips of filter paper	4 per group	Activity- Chromatography Lab
Clear cups	4 per group	

Crime Scene Photography	Amount	Activity/Project Name
Knife	1	
Pill bottle	1	
Eye dropper	1	Activity- Investigate the Crime
Paper bag	1	Scene
Fake Blood	1	
Any item that can serve as evidence	can vary	
Autopsy Process	Amount	Activity/Project Name
Butcher paper	3 ft per group	Drainet Devierming on
Flat cardboard box	1 per group	Project- Performing an Autopsy
Scalpels	1 per group	Autopsy