



## Unit 8: CTE Alignment Matrix

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## Executive Summary

Sponsored by Genentech, Futurelab+ brought together a coalition of partners to develop an innovative, modular, 2-year biotechnology curriculum, along with instructional materials, to expose students and educators to the breadth of education and career pathways across biotechnology. To increase adoption and access to such curricula in California and beyond, the modular curriculum was designed to align with the [California Career Technical Education \(CTE\) Model Curriculum Standards for Biotechnology](#), meet at least 1 year of the [University of California science \(D\) subject requirement](#), and incorporate some of the three-dimensional learning innovations of the [Next Generation Science Standards](#). The 2-year biotechnology curriculum has four core units per year; each core unit has nine lessons and a lab that each take approximately 1 week to complete (9–10 weeks for the full unit). In total, the biotechnology curriculum has 72 lessons and eight labs that span 2 full instructional years. Because the Futurelab+ biotechnology curriculum is modular, teachers can select specific units and materials to design biotechnology courses that are relevant and appropriate for their students and teaching environments.

The purpose of this report is to provide teachers an independent review of which California CTE biotechnology standards are addressed within the curriculum and where they are addressed. The matrices that follow indicate the assignments and/or activities in which students demonstrate their understanding of a particular standard.

**This review was completed on materials received April 18, 2022, and has not been updated to reflect any revisions made to materials since then.** Only the standards met within Unit 8 are included in the matrices.

As noted in the Unit 8 Example Pacing Guide, “The proposal development (PD) lessons and DNA technology (Tech) lessons can be interspersed with each other but should still be taught in order. For example, a teacher may start with PD 1, then teach Tech 1, Tech 2, Tech 3 and come back to PD 2 etc. Lessons 9, 10, and 11 require knowledge of all previous lessons.” Because the PD and Tech lessons may be interspersed at the teacher’s discretion, we refer to lessons in the following way:

Label	Title of lesson in materials reviewed
Lesson 1	Community Applications of DNA Identification
PD 1	PD1: Analyzing Community Needs and Proposal Identification
PD 2	PD2: Competitive Landscape Analysis
PD 3	PD3: Stakeholders and Inclusion
Tech 1	Tech 1: DNA Recap
Tech 2	Tech 2: Sanger Sequencing
Tech 3	Tech 3: Digital PCR
Tech 4	Tech 4: NextGen Sequencing
Lesson 9	Decision Tree Creation
Lesson 10	DNA Collection Kit Design
Lesson 11	Final Artifact

## Anchor Standards

Standard	Description	Assessed (all student sections)
<p><b>2.0 Communications:</b> <i>Acquire and accurately use Health Science and Medical Technology sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats. (Direct alignment with LS 9–10, 11–12.6)</i></p>		
2.4	Demonstrate elements of written and electronic communication, such as accurate spelling, grammar, and format.	<p><b>PD 1, Day 1</b>  <i>Community Mapping</i>—assessment at teacher discretion</p> <p><b>PD 1, Days 3–8</b>  <i>Interview Preparation and Survey Development, Data Collection Resources Part D: Sample Survey Questions</i>—assessment at teacher discretion after completing final artifact in Lesson 11</p> <p><i>Project Proposal</i>—capture sheet  <i>Project Proposal Peer Feedback</i>—capture sheet  <i>One-minute informal proposal overview</i>—assessment at teacher discretion</p> <p><b>Lesson 11, Days 3–5</b>  <i>DNA Identification: Final Artifact Task</i>—capture sheet  <i>Daily Progress Check</i>—capture sheet  <i>Final Assessment</i>—rubric</p> <p><b>Lesson 11, Day 6</b>  <i>Peer Feedback Form, Group Spokesperson</i>—capture sheet  <i>Peer Feedback Form, Peer Reviewer</i>—capture sheet  <i>Group Feedback Review</i>—capture sheet</p> <p><b>Lesson 11, Days 7–8</b>  <i>Pitch Evaluation</i>—capture sheet</p>
2.5	Communicate information and ideas effectively to multiple audiences using a variety of media and formats.	<p><b>PD 1, Day 1</b>  <i>Community Mapping</i>—assessment at teacher discretion</p> <p><b>PD 1, Days 3–8</b>  <i>Interview Preparation and Survey Development, Data Collection Resources Part D: Sample Survey Questions</i>—assessment at teacher discretion after completing final artifact in Lesson 11</p> <p><i>Project Proposal</i>—capture sheet  <i>Project Proposal Peer Feedback</i>—capture sheet  <i>One-minute informal proposal overview</i>—assessment at teacher discretion</p>

Standard	Description	Assessed (all student sections)
		<p><b>PD 2, Day 3</b>  <i>Competitive Landscape Analysis Summary Report</i>—capture sheet, assessment after completing final artifact in Lesson 11  <i>Competitive Landscape Analysis Feedback Form</i>—capture sheet  <i>Summary Findings Informal Presentation</i>—assessment at teacher discretion</p> <p><b>Lesson 10, Day 2</b>  <i>Whiteboard Design Challenge Task List</i>, step 4—capture sheet</p> <p><b>Lesson 10, Day 3</b>  <i>DNA Test Kit Model Requirements</i>—capture sheet, assessment after completing final artifact in Lesson 11</p> <p><b>Lesson 11, Day 1</b>  <i>What Makes a Successful Crowdfunding Campaign?</i> questions 2–4—capture sheet</p> <p><b>Lesson 11, Day 2</b>  <i>Final Artifact Roles</i>—resource  <i>Story Creation Brainstorm</i>—capture sheet</p> <p><b>Lesson 11, Days 3–5</b>  <i>DNA Identification: Final Artifact Task</i>—capture sheet  <i>Daily Progress Check</i>—capture sheet  <i>Final Assessment</i>—rubric</p> <p><b>Lesson 11, Day 6</b>  <i>Peer Feedback Form, Group Spokesperson</i>—capture sheet  <i>Peer Feedback Form, Peer Reviewer</i>—capture sheet  <i>Group Feedback Review</i>—capture sheet</p> <p><b>Lesson 11, Days 7–8</b>  <i>Pitch Evaluation</i>—capture sheet</p>
2.8	Understand and use correct medical terminology for common pathologies.	<p><b>Lesson 10, Day 1</b>  <i>Whiteboard Design Challenge Task List</i>, steps 1–2—capture sheet</p> <p><b>Lesson 10, Day 3</b>  <i>DNA Test Kit Model Requirements</i>—capture sheet, assessment after completing final artifact in Lesson 11</p>

Standard	Description	Assessed (all student sections)
<b>3.0 Career Planning and Management:</b> <i>Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans. (Direct alignment with SLS 11–12.2)</i>		
3.6	Recognize the role and function of professional organizations, industry associations, and organized labor in a productive society.	<p><b>PD 2, Day 1</b> <i>Who’s the Competition?</i>—capture sheet</p> <p><b>PD 2, Day 2</b> <i>Analyzing the Competition</i>—capture sheet</p> <p><b>PD 2, Day 3</b> <i>Competitive Landscape Analysis Summary Report</i>—capture sheet, assessment after completing final artifact in Lesson 11</p> <p><i>Competitive Landscape Analysis Feedback Form</i>—capture sheet</p> <p><i>Summary Findings Informal Presentation</i>—assessment at teacher discretion</p>
<b>4.0 Technology:</b> <i>Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Health Science and Medical Technology sector workplace environment. (Direct alignment with WS 11–12.6)</i>		
4.3	Use information and communication technologies to synthesize, summarize, compare, and contrast information from multiple sources.	<p><b>Tech 4, Day 1</b> <i>Next Generation of Food Safety Case Study</i>, question 5—capture sheet</p> <p><i>County Health Department, DNA Sequencing Sampling Request Form</i>—capture sheet</p> <p><b>Tech 4, Day 3</b> <i>Data Analysis 2</i>—capture sheet</p> <p><b>Tech 4, Day 4</b> <i>NextGen Sequencing Check for Understanding</i>—capture sheet</p>
4.5	Research past, present, and projected technological advances as they impact a particular pathway.	<p><b>Tech 3, Day 1</b> <i>Digital PCR Scenario Analysis</i>, question 3—capture sheet</p> <p><i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p>
<b>7.0 Responsibility and Flexibility:</b> <i>Initiate and participate in a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Health Science and Medical Technology sector workplace environment and community settings. (Direct alignment with SLS 9–10, 11–12.1)</i>		
7.1	Recognize how financial management impacts the economy, workforce, and community.	<p><b>Lesson 11, Days 3–5</b> <i>DNA Identification: Final Artifact Task</i>—capture sheet</p> <p><i>Daily Progress Check</i>—capture sheet</p> <p><i>Final Assessment</i>—rubric</p>

Standard	Description	Assessed (all student sections)
		<p><b>Lesson 11, Day 6</b>  <i>Peer Feedback Form, Group Spokesperson</i>—capture sheet  <i>Peer Feedback Form, Peer Reviewer</i>—capture sheet  <i>Group Feedback Review</i>—capture sheet</p> <p><b>Lesson 11, Days 7–8</b>  <i>Pitch Evaluation</i>—capture sheet</p>
7.2	Explain the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.	<p><b>Lesson 1, Day 1</b>  <i>Communities Journal, Part 1</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Class Discussion</i>—strategy, assessment at teacher discretion  <i>Community Science Topic Overview, Part 1: Background Research</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Days 3–4</b>  <i>Community Science Topic Overview, Part 2: Group Discussion</i>, questions 2 and 4—capture sheet  <i>Community Science Topic Summary Board</i>—template  <i>Jigsaw</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Day 5</b>  <i>Learning Artifact Graphic Organizer: Coyote Example</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Final Topic Interest Survey</i>—capture sheet</p>

## Pathway Standards

Standard	Description	Assessed
<b>A1.0:</b> Define and assess biotechnology and recognize the diverse applications and impact on society.		
A1.1	Use data to explain how biotechnology fields such as pharmaceuticals, agriculture, diagnostics, industrial products, instrumentation, and research and development are impacting human life.	<p><b>PD 1, Day 1</b>  <i>Communities Journal, Part 2</i>—capture sheet  <i>Community Mapping</i>—assessment at teacher discretion</p> <p><b>PD 1, Day 2</b>  <i>Communities Journal, Part 2</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Identifying Community Leaders</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p>

Standard	Description	Assessed
		<p><b>PD 1, Days 3–8</b>  <i>Data Collection Plan</i>—capture sheet  <i>Interview Preparation and Survey Development</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Data Analysis</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Project Proposal</i>—capture sheet  <i>Project Proposal Peer Feedback</i>—capture sheet  <i>One-minute informal proposal overview</i>—assessment at teacher discretion</p> <p><b>PD 2, Day 2</b>  <i>Analyzing the Competition</i>—capture sheet</p> <p><b>PD 2, Day 3</b>  <i>Competitive Landscape Analysis Summary Report</i>—capture sheet, assessment after completing final artifact in Lesson 11  <i>Competitive Landscape Analysis Feedback Form</i>—capture sheet  <i>Summary Findings Informal Presentation</i>—assessment at teacher discretion</p> <p><b>PD 3, Day 1</b>  <i>Stakeholder Analysis Preparation</i>—capture sheet</p> <p><b>PD 3, Day 2</b>  <i>Agree Signs</i>—strategy, assessment at teacher discretion</p> <p><b>PD 3, Day 3</b>  <i>Stakeholder Analysis Inclusion Grid</i>—capture sheet, assessment after completing final artifact in Lesson 11</p>
A1.6	Explore and outline the various science and non-science fields and careers associated with biotechnology.	<p><b>Lesson 1, Day 1</b>  <i>Class Discussion</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Day 2</b>  <i>Community Science Topic Overview, Part 1: Background Research</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Days 3–4</b>  <i>Community Science Topic Overview, Part 2: Group Discussion</i>—capture sheet  <i>Community Science Topic Summary Board</i>—template  <i>Jigsaw</i>—strategy, assessment at teacher discretion</p>

Standard	Description	Assessed
		<p><b>Lesson 1, Day 5</b>  <i>Learning Artifact Graphic Organizer: Coyote Example</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Final Topic Interest Survey</i>—capture sheet</p> <p><b>PD 1, Day 1</b>  <i>Communities Journal, Part 2</i>—capture sheet  <i>Community Mapping</i>—assessment at teacher discretion</p> <p><b>PD 1, Day 2</b>  <i>Communities Journal, Part 2</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Identifying Community Leaders</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p> <p><b>PD 1, Days 3–8</b>  <i>Data Collection Plan</i>—capture sheet  <i>Interview Preparation and Survey Development</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Data Analysis</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Project Proposal</i>—capture sheet  <i>Project Proposal Peer Feedback</i>—capture sheet  <i>One-minute informal proposal overview</i>—assessment at teacher discretion</p> <p><b>PD 2, Day 1</b>  <i>Social Media</i>—capture sheet  <i>Who’s the Competition?</i>—capture sheet</p> <p><b>PD 2, Day 2</b>  <i>Analyzing the Competition</i>—capture sheet</p> <p><b>PD 2, Day 3</b>  <i>Competitive Landscape Analysis Feedback Form</i>—capture sheet  <i>Summary Findings Informal Presentation</i>—assessment at teacher discretion  <i>Competitive Landscape Analysis Summary Report</i>—capture sheet, assessment after completing final artifact in Lesson 11</p> <p><b>PD 3, Day 1</b>  <i>Stakeholder Analysis Preparation</i>—capture sheet</p>

Standard	Description	Assessed
		<p><b>PD 3, Day 2</b>  <i>Agree Signs</i>—strategy, assessment at teacher discretion</p> <p><b>PD 3, Day 3</b>  <i>Stakeholder Analysis Inclusion Grid</i>—capture sheet, assessment after completing final artifact in Lesson 11</p> <p><b>Tech 2, Day 1</b>  <i>Four Color Chromatogram</i>—capture sheet  <i>Whole Group Prior Knowledge Discussion</i>—strategy, assessment at teacher discretion  <i>Modeling Sanger Sequencing</i>—capture sheet</p> <p><b>Tech 2, Day 2</b>  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p> <p><b>Tech 3, Day 1</b>  <i>Digital PCR Scenario Analysis</i>—capture sheet  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p> <p><b>Tech 4, Day 1</b>  <i>The Next Generation of Food Safety Case Study</i>, questions 1, 2, and 5—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>County Health Department, DNA Sequencing Sampling Request Form</i>—capture sheet</p> <p><b>Tech 4, Day 2</b>  <i>Data Analysis 1</i>—capture sheet</p> <p><b>Tech 4, Day 3</b>  <i>Data Analysis 2</i>—capture sheet</p> <p><b>Tech 4, Day 4</b>  <i>NextGen Sequencing Check for Understanding</i>—capture sheet  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p> <p><b>Lesson 9, Day 1</b>  <i>Technology Overview, Part 2: Decision Tree Creation</i>—capture sheet  <i>Jigsaw</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 11, Day 1</b>  <i>What Makes a Successful Crowdfunding Campaign?</i>—capture sheet</p>

Standard	Description	Assessed
		<p><b>Lesson 11, Day 2</b>  <i>Final Artifact Roles</i>—resource  <i>Story Creation Brainstorm</i>—capture sheet</p> <p><b>Lesson 11, Days 3–5</b>  <i>DNA Identification: Final Artifact Task</i>—capture sheet  <i>Daily Progress Check</i>—capture sheet</p> <p><b>Lesson 11, Day 6</b>  <i>Peer Feedback Form, Group Spokesperson</i>—capture sheet  <i>Peer Feedback Form, Peer Reviewer</i>—capture sheet  <i>Group Feedback Review</i>—capture sheet  <i>Final Assessment</i>—rubric</p> <p><b>Lesson 11, Days 7–8</b>  <i>Pitch Evaluation</i>—capture sheet</p>
<p><b>A3.0:</b> <i>Demonstrate competencies in the fundamentals of molecular cell biology, including deoxyribonucleic acid (DNA) and proteins and standard techniques for their purification and manipulation.</i></p>		
A3.1	Define and describe the structure and function of DNA, ribonucleic acid (RNA), and proteins and explain the consequences of DNA mutations on proteins.	<p><b>Tech 1, Day 1</b>  <i>Sample of DNA Analysis</i> (structure and function)—capture sheet</p> <p><b>Tech 1, Day 2</b>  <i>DNA Identification Techniques Overview</i>, question 1 (structure and function)—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion</p> <p><b>Tech 2, Day 1</b>  <i>Four Color Chromatogram</i>—capture sheet  <i>Whole Group Prior Knowledge Discussion</i>—assessment at teacher discretion  <i>Modeling Sanger Sequencing</i>—capture sheet</p> <p><b>Tech 2, Day 2</b>  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p>
A3.3	Employ standard techniques of DNA extraction, purification, restriction digests, bacterial cell culture, and agarose gel electrophoresis and document and evaluate results.	<p><b>Tech 4, Day 2</b>  <i>Data Analysis 1</i>—capture sheet</p> <p><b>Tech 4, Day 4</b>  <i>NextGen Sequencing Check for Understanding</i>—capture sheet  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p>

Standard	Description	Assessed
<b>A4.0:</b> Recognize basic concepts in cell biology and become familiar with the laboratory tools used for their analysis.		
A4.5	Discuss the structure and function of the macromolecules that compose cells, including carbohydrates, lipids, DNA, RNA, and protein molecules.	<p><b>Tech 1, Day 1</b>  <i>Sample of DNA Analysis</i> (DNA)—capture sheet</p> <p><b>Tech 1, Day 2</b>  <i>DNA Identification Techniques Overview</i>, question 1 (DNA)—capture sheet  <i>Think-Pair-Share</i> (DNA)—strategy, assessment at teacher discretion</p>
<b>A5.0:</b> Integrate computer skills into program components.		
A5.1	Use the Internet and World Wide Web to collect and share scientific information.	<p><b>Lesson 1, Day 1</b>  <i>Communities Journal, Part 1</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Class Discussion</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Day 2</b>  <i>Community Science Topic Overview, Part 1: Background Research</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Days 3–4</b>  <i>Community Science Topic Overview, Part 2: Group Discussion</i>—capture sheet  <i>Community Science Topic Summary Board</i>—template  <i>Jigsaw</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Day 5</b>  <i>Learning Artifact Graphic Organizer: Coyote Example</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion</p>
A5.2	Use a variety of methods, including literature searches in libraries, computer databases, and online, for gathering background information, making observations, and collecting and organizing data.	<p><b>Lesson 1, Day 1</b>  <i>Communities Journal, Part 1</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Class Discussion</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Day 2</b>  <i>Community Science Topic Overview, Part 1: Background Research</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p> <p><b>Lesson 1, Days 3–4</b>  <i>Community Science Topic Overview, Part 2: Group Discussion</i>—capture sheet  <i>Community Science Topic Summary Board</i>—template  <i>Jigsaw</i>—strategy, assessment at teacher discretion</p>

Standard	Description	Assessed
		<p><b>Lesson 1, Day 5</b>  <i>Learning Artifact Graphic Organizer: Coyote Example</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion</p> <p><b>PD 1, Day 1</b>  <i>Communities Journal, Part 2</i>—capture sheet  <i>Community Mapping</i>—assessment at teacher discretion</p> <p><b>PD 1, Day 2</b>  <i>Communities Journal, Part 2</i>—capture sheet  <i>Think-Pair-Share</i>—strategy, assessment at teacher discretion  <i>Identifying Community Leaders</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion</p> <p><b>PD 1, Days 3–8</b>  <i>Data Collection Plan</i>—capture sheet  <i>Interview Preparation and Survey Development</i>—assessment at teacher discretion after completing final artifact in Lesson 11</p> <p><b>PD 2, Day 1</b>  <i>Social Media</i>—capture sheet  <i>Who’s the Competition?</i>—capture sheet</p> <p><b>PD 2, Day 2</b>  <i>Analyzing the Competition</i>—capture sheet</p> <p><b>PD 3, Day 1</b>  <i>Stakeholder Analysis Preparation</i> (background research)—capture sheet</p> <p><b>PD 3, Day 3</b>  <i>Stakeholder Analysis Inclusion Grid</i> (background research)—capture sheet, assessment after completing final artifact in Lesson 11</p> <p><b>Tech 2, Day 2</b>  <i>Technology Overview, Part 1: DNA Identification</i> (online background information)—capture sheet</p> <p><b>Tech 3, Day 1</b>  <i>Digital PCR Scenario Analysis</i>—capture sheet</p> <p><b>Lesson 9, Day 1</b>  <i>Technology Overview, Part 1: DNA Identification</i> (organizing data)—capture sheet</p> <p><b>Lesson 11, Day 2</b>  <i>Final Artifact Roles</i> (organizing data)—resource  <i>Story Creation Brainstorm</i> (making observations)—capture sheet</p>

Standard	Description	Assessed
		<p><b>Lesson 11, Days 3–5</b>  <i>DNA Identification: Final Artifact Task</i> (organizing data, research)—capture sheet  <i>Daily Progress Check</i> (organizing data)—capture sheet  <i>Final Assessment</i> (organizing data, research)—rubric</p>
<p><b>A6.0:</b> <i>Implement use of the metric system, orders of magnitude, and the pH scale in preparation of reagents, analysis of data, and graphing.</i></p>		
A6.1	Apply knowledge of symbols, algebra, and statistics to graphical data presentation.	<p><b>PD 1, Day 1</b>  <i>Community Mapping</i>—assessment at teacher discretion  <b>PD 1, Days 3–8</b>  <i>Data Analysis</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Project Proposal</i>—capture sheet  <i>Project Proposal Peer Feedback</i>—capture sheet  <i>One-minute informal proposal overview</i>—assessment at teacher discretion  <b>Lesson 10, Day 2</b>  <i>Whiteboard Design Challenge Task List</i>, steps 3–4—capture sheet  <b>Lesson 10, Day 3</b>  <i>DNA Test Kit Model Requirements</i>—capture sheet, assessment after completing final artifact in Lesson 11</p>
A6.4	Create data tables and graphs using Excel to collect and analyze data.	<p><b>PD 1, Day 1</b>  <i>Community Mapping</i>—assessment at teacher discretion  <b>PD 1, Day 2</b>  <i>Identifying Community Leaders</i>—capture sheet  <i>Exit Ticket</i>—strategy, assessment at teacher discretion  <b>PD 1, Days 3–8</b>  <i>Data Collection Plan</i>—capture sheet  <i>Interview Preparation and Survey Development</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Data Analysis</i>—assessment at teacher discretion after completing final artifact in Lesson 11  <i>Project Proposal</i>—capture sheet  <i>Project Proposal Peer Feedback</i>—capture sheet  <i>One-minute informal proposal overview</i>—assessment at teacher discretion</p>

Standard	Description	Assessed
<b>A8.0:</b> Follow sustainable and safe practices with high regard for quality control.		
A8.7	Determine what equipment is appropriate to use for a given task and the units of measurement used.	<p><b>Tech 3, Day 1</b>  <i>Digital PCR Scenario Analysis</i>, question 3—capture sheet  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p> <p><b>Tech 4, Day 2</b>  <i>Data Analysis 1</i>—capture sheet</p> <p><b>Tech 4, Day 4</b>  <i>Technology Overview, Part 1: DNA Identification</i>—capture sheet</p> <p><b>Lesson 9, Day 2</b>  <i>Technology Overview, Part 2: Decision Tree Creation</i>, step 3—capture sheet, assessment after completing final artifact in Lesson 11</p> <p><b>Lesson 9, Day 3</b>  <i>Decision Tree Feedback</i>—capture sheet</p> <p><b>Lesson 11, Days 3–5</b>  <i>DNA Identification: Final Artifact Task</i>—capture sheet  <i>Daily Progress Check</i>—capture sheet  <i>Final Assessment</i>—rubric</p> <p><b>Lesson 11, Day 6</b>  <i>Peer Feedback Form, Group Spokesperson</i>—capture sheet  <i>Peer Feedback Form, Peer Reviewer</i>—capture sheet  <i>Group Feedback Review</i>—capture sheet</p> <p><b>Lesson 11, Days 7–8</b>  <i>Pitch Evaluation</i>—capture sheet</p>



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