

Nevada Middle School CTE Framework

Carlin Combined Schools, Carlin

Jim Bridgers Middle School, Las Vegas

Spring Creek Middle School, Spring Creek

Dayton Intermediate School, Dayton

Eagle Valley Middle School, Carson City

Lied STEM Academy, Las Vegas

Wells Combined Schools, Wells

Carson Middle School, Carson City

Lied STEM Academy, Las Vegas

Eagle Valley School, Smith

Carroll M. Johnston Middle School, Las Vegas

Carson Middle School, Carson City

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This framework is the result of a statewide collaboration between the Carson, Elko, Lyon, and Clark County School Districts. It is designed to move beyond traditional, isolated, semester-based elective middle school course standards and instead offer a comprehensive "on-ramp" to high school Career and Technical Education (CTE) pathways throughout Nevada, giving schools and districts flexibility in developing middle school CTE courses/pathways.

Unlike previous models that limited students to a few specific pathways for a single semester, this framework introduces students to essential concepts and skills that support career readiness across all major industries. Through hands-on learning, students don't just read about work—they engage with it through four foundational pillars: Understanding Careers, Safety, Employability Skills, and Project-Based Learning.

The primary goal of this framework is to empower middle school students to develop a clear occupational identity. Research from *Advance CTE* and *Hanover Research* suggests that middle school is the critical window for students to increase self-awareness and begin making informed educational choices.

The Nevada Middle School CTE Framework is designed as a versatile "vessel." Rather than being a static set of general rules, it serves as a structural foundation in which specific technical content—whether Health Science, Agriculture, or Advanced Manufacturing—is woven directly into the framework.

The purpose of the middle school framework is to:

- **Align with High School Success:** Provide a direct link between middle school exploration and the full suite of CTE pathways available at their local high school.
- **Integrated technical skills:** Technical content standards can be woven throughout the pillars to ensure students build a "foundational technical skill set" that directly translates into high school success.
- **Increase Flexibility:** Allow districts and schools the freedom to teach these standards over 9 weeks to 3 full years. This ensures students can deepen their knowledge over time rather than being limited to a single semester of exposure, which is based on district/school needs.
- **Foster Real-World Application:** Utilize **4PBL (Phenomenon, Place, Project, Problem)** to help students apply academic principles to real-world tasks, such as budgeting or technical problem-solving.
- **Prepare for the "Whole" Career:** Beyond technical skills, this framework prepares students for **CTSO participation** and helps them understand the value of industry-recognized credentials and work-based learning.

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Examples of how technical content/skills can be woven into the framework

Pillar	How Content is Woven In
01: Careers & Work	Students don't just "look at jobs"—they explore specific pathways and training requirements within their chosen cluster, such as Nursing for Health Science or Welding for Manufacturing.
02: Safety & Best Practices	Safety training is tailored to the field. An Agriculture student might focus on tool management, while a Health Science student applies universal precautions.
03: Employability Skills	Students develop communication and teamwork skills through the lens of their industry, such as practicing professional interviews or solving industry-specific problems.
04: 4PBL	Content comes to life through Phenomenon, Place, Project, and Problem. For example, a student might solve a real-world "Problem" by preparing a nutrition-based meal plan or designing a sustainable manufacturing workflow.

FRAMEWORK DEVELOPMENT MEMBERS

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The standards are organized as follows:

Framework Pillars are general statements that identify major areas of knowledge, understanding, and the skills students are expected to learn in key subject and career areas by the end of the course.

Performance Standards follow each framework pillar. Performance standards identify the more specific components of each framework pillar and define the expected abilities of students within each content standard.

Performance Indicators are specific criteria used to determine whether a student meets the performance standard. Performance indicators may also be used as learning outcomes, which teachers can identify when planning their course learning objectives.

The crosswalk and alignment section of the document shows where the performance indicators support the Nevada Academic Content Standards in Science (based on the Next Generation Science Standards) and in English Language Arts and Mathematics (based on the Common Core State Standards). When there is alignment with academic content standards and practices, students in the middle school Agriculture & Natural Resources course engage in learning activities that support, either directly or indirectly, the achievement of the listed academic content standards.

Career and Technical Student Organizations are co-curricular national associations that directly enforce learning in the CTE classroom through curriculum resources, competitive events, and leadership development. Some CTSOs offer middle school-level programs that allow students to develop leadership skills and apply what they learn in Agriculture & Natural Resources.

The Standards Reference Code is used only to identify or align performance indicators listed in the standards with daily lesson plans, curriculum documents, or national standards.

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Course Name: Explore _____

The blank line would be filled with an item from the list of CTE High School Clusters.

- Advanced Manufacturing
- Agriculture
- Arts, Entertainment, and Design
- Construction
- Digital Technology
- Education
- Energy and Natural Resources
- Finance Services
- Healthcare and Human Services
- Hospitality, Events and Tourism
- Management and Entrepreneurship
- Marketing and Sales
- Public Service and Safety
- Supply Chain and Transportation

Course Description: This course will introduce high school CTE pathways. It is a repeatable course that introduces students to essential concepts and skills supporting career readiness across various fields. Through hands-on learning and exploration, students will engage with four main pillars: **Understanding Careers and the Nature of Work, Safety and Best Practices, Employability Skills, and 4PBL (Phenomenon, Place, Project, Problem)**. Emphasis is placed on developing critical thinking, collaboration, and real-world application. Each year, students will deepen their knowledge and expand their skill sets with age-appropriate experiences and increasing levels of responsibility. This course is designed to be taught over a period ranging from nine weeks to three years, depending on the needs of the school site.

Pillar Descriptions

Pillar One, Understanding Careers and the Nature of Work: This pillar helps students explore career pathways, understand the requirements of various careers, and relate their interests and skills to the job market.

Pillar Two, Safety and Best Practices: Safety is crucial in both practical and technical tasks. Students will be taught to use tools and equipment safely and to follow safety protocols across different career fields.

Pillar Three, Employability Skills. This pillar helps students develop the necessary skills for professional success, including communication, teamwork, decision-making, and conflict resolution.

Pillar Four, 4PBL (Phenomenon, Place, Project, Problem): Project-based learning allows students to apply their skills to real-world tasks, such as creating a budget or preparing a meal. It also fosters teamwork and problem-solving.

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Diversity of CTE Course Structures

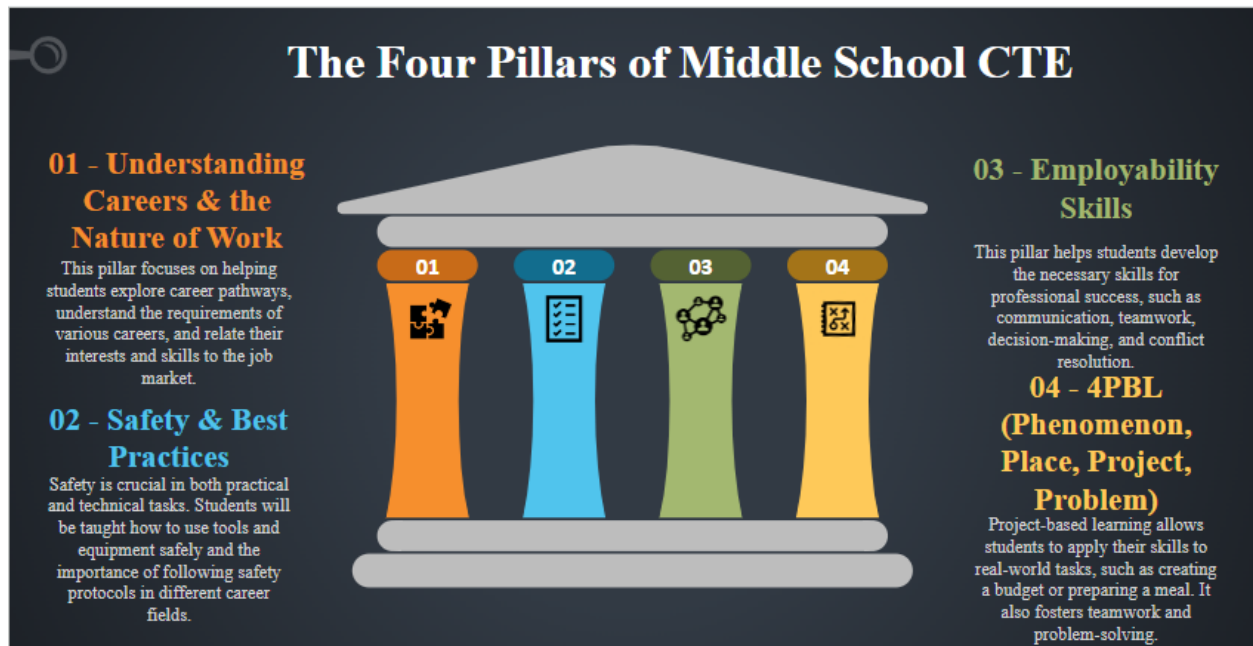
- CTE courses at the middle school level come in many different formats. These range from short nine-week exploratory classes to semester-long, full-year, or multi-year programs. Because of this variety, the way the standards are applied might differ.

Adapting to Course Length and Progression

- Educators should incorporate the Pillars to align with the length and progression of their courses, enabling them to tailor instruction effectively. This ensures that students engage with the critical concepts in meaningful and appropriate ways for their development.

Flexibility for Skill Reinforcement

- This flexibility in how the standards are applied allows skills to be reinforced and deepened over time. It ensures that students continue to build on what they've learned while maintaining the integrity and intent of the standards.



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Framework Pillar: 1.0 Understand Careers and the Nature of Work

Performance Standard 1.1: Explore Career Pathways

- 1.1.1 Explore career pathways and opportunities within various [career clusters](#).
- 1.1.2 Relate personal skills, interests, talents, and values to a career pathway.
- 1.1.3 Compare academic degrees, certifications, and other credentials.
- 1.1.4 Explore career options by evaluating academic or training requirements.

Framework Pillar: 2.0 Safety and Best Practices

Performance Standard 2.1: Sustainability

- 2.1.1 Define and summarize principles of sustainability and sustainable design.
- 2.1.2 Analyze patterns in the relationship between human activities and the environment.
- 2.1.3 Evaluate the impact of technology on sustainability across different fields.

Performance Standard 2.2: Health and Wellness

- 2.2.1 Apply the concept of universal precautions.
- 2.2.2 Explain and cite evidence of practices, behaviors, and lifestyle choices that promote health and wellness or prevent disease in the workplace.
- 2.2.3 Demonstrate proper management, storage, and care of tools and equipment.
- 2.2.4 Differentiate general classroom safety rules and procedures.
- 2.2.5 Demonstrate safe handling and use of tools and equipment.

Performance Standard 2.3: Digital Health and Wellness

- 2.3.1 Construct a clear argument addressing digital safety and the lasting impact of a digital footprint.
- 2.3.2 Demonstrate safe practices in online applications, including privacy policies, agreement statements, digital media balance, and licensing agreements.
- 2.3.3 Identify appropriate uses of technology based on different environments and constraints.

Framework Pillar: 3.0 Employability Skills

**Refer to the Employability Skills Framework*

Performance Standard 3.1: Applied Knowledge

Academic Skills:

- 3.1.1 Apply reading, writing, and mathematical and scientific principles and procedures.

Critical Thinking Skills:

- 3.1.2 Evaluate situations, develop creative solutions, make informed decisions, and plan strategically to solve problems and reach goals.

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Performance Standard 3.2: Effective Relationships

Interpersonal Skills:

- 3.2.1 Addresses stakeholder needs by actively listening to understand their requirements, providing timely solutions, and ensuring a positive and satisfying stakeholder experience.
- 3.2.2 Negotiates to resolve conflicts by facilitating open communication, identifying common ground, and developing mutually beneficial solutions.
- 3.2.3 Demonstrates respect for individual differences by valuing diverse perspectives, fostering inclusivity, and ensuring equitable treatment of all individuals.

Personal Qualities:

- 3.2.4 Take ownership of actions, maintain accountability, uphold ethical standards, and consistently exhibit self-discipline in personal and professional tasks.
- 3.2.5 Adapts to changing circumstances and demonstrates flexibility by adjusting priorities, approaches, and strategies to meet evolving needs.
- 3.2.6 Demonstrates the ability to take initiative, work independently by managing tasks efficiently, making informed decisions, and achieving objectives with minimal supervision.
- 3.2.7 Exhibits a willingness to learn by seeking feedback, embracing new challenges, and actively pursuing opportunities to acquire new knowledge and skills.
- 3.2.8 Displays a positive attitude and sense of self-worth by maintaining optimism, demonstrating confidence, and encouraging a supportive and uplifting environment.
- 3.2.9 Takes responsibility for professional growth by actively seeking learning opportunities, setting development goals, and applying feedback to enhance skills and knowledge.

Performance Standard 3.3: Workplace Skills

Technology

- 3.3.1 Understands and uses technology - Effectively understands and uses technology by leveraging appropriate tools, software, and systems to complete tasks efficiently and solve problems.

Communication Skills

- 3.3.2 Demonstrates clear verbal and written communication, active listening, reading comprehension, and attention to detail.

Information Use

- 3.3.3 Locate, organize, and analyze information to draw meaningful conclusions and communicate findings clearly and accurately to support decision-making and problem-solving.

Resource Management

- 3.3.4 Manages time, financial resources, and materials to optimize productivity, meet objectives, and ensure the effective use of resources.

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Framework Pillar: 4.0 Project-Based Learning (4PBL - Phenomenon, Place, Project, Problem)

Performance Standard 4.1: Leadership and Teamwork

- 4.1.1 Collaborates effectively with team members by demonstrating strong interpersonal skills, fostering a cooperative environment, and contributing to achieving shared goals.
- 4.1.2 Understand self-awareness and its impact on leadership.

Performance Standard 4.2: Problem-Solving and Innovation

- 4.2.1 Connect background knowledge to new learning experiences.
- 4.2.2 Apply concepts through performance-based tasks.
- 4.2.3 Utilize critical thinking skills in daily learning.

Performance Standard 4.3: Prepare and Present to Various Audiences

- 4.3.1 Integrating technology, create projects for various sharing and evaluation.
- 4.3.2 Use peer and mentor feedback to compare, evaluate, and refine projects or presentations.

^^**OPTIONAL Expanded Learning Opportunities**

Career and Technical Student Organizations (CTSOs)

- *Demonstrate leadership skills through participation in school activities, clubs, or CTSOs.*
- *Engage in FFA, FCCLA, HOSA, FBLA, BPA, TSA, DECA, or SkillsUSA events that align with the pillars of the framework.*
 - [Future Farmers of America \(FFA\)](#)
 - [Family, Career, and Community Leaders of America \(FCCLA\)](#)
 - [Health Occupation Students of America\(HOSA\)](#)
 - [Future Business Leaders of America \(FBLA\)](#)
 - [Business Professionals of America \(BPA\)](#)
 - [Technology Student Association \(TSA\)](#)
 - [Distributive Education Clubs of America \(DECA\)](#)
 - [SkillsUSA](#)
- *Incorporate CTSO activities into co-curricular learning experiences.*
- *Plan and participate in community service projects.*
- *Develop and deliver public speaking presentations.*
- *Practice professional interview skills by engaging in mock interviews with adults.*
- *Local District Pathway Exploration: Expose students to pathways available at the high school level.*

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Crosswalk of the Middle School CTE Framework and the Nevada Academic Content Standards

<i>Pillar 1 –Understand Careers and the Nature of Work</i>	
Performance Indicators	Nevada Academic ELA Content Standards
1.1.1	RI.6-8.7 – Integrate information from different formats to improve understanding. W.6-8.2 –Write informative texts on careers or pathways.
1.1.2	W.6-8.1 –Write arguments connecting personal strengths to pathways. W.6-8.4 –Develop clear writing appropriate to the task and audience.
1.1.3	RI.6-8.3 –Analyze key distinctions in informational texts. W.6-8.2 –Write comparisons using domain-specific vocabulary.
1.1.4	W.6-8.7 –Conduct short research projects to answer career-related questions. W.6-8.8 –Use relevant sources and evidence in planning.

<i>Pillar 2 –Safety and Best Practices</i>	
Performance Indicators	Nevada Academic ELA Content Standards
2.1.1	RI.6-8.2 –Determine central ideas and summarize informational texts. W.6-8.2 –Write informative texts using clear explanations and domain-specific vocabulary.
2.1.2	RI.6-8.3 –Analyze relationships among ideas/events in a text. W.6-8.1 –Write arguments with supported claims using evidence.
2.1.3	W.6-8.2 –Write explanatory texts examining cause/effect. W.6-8.8 –Use multiple sources to support writing and analysis.
2.2.1	W.6-8.2 –Write procedural or explanatory texts describing safety practices.
2.2.2	RI.6-8.1 –Cite textual evidence. W.6-8.2 –Develop texts explaining behaviors using evidence.
2.2.3	W.6-8.7 –Research to answer a question. W.6-8.8 –Gather information from multiple sources.
2.2.3 – 2.2.5	W.6-8.2 –Write how-to or explanatory texts using clear and sequential steps. W.6-8.4 –Maintain task-focused clarity.
2.2.1	W.6-8.2 –Write procedural or explanatory texts describing safety practices.

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2.2.2	RI.6-8.1 –Cite textual evidence. W.6-8.2 –Develop texts explaining behaviors using evidence.
2.2.3	W.6-8.7 –Research to answer a question. W.6-8.8 –Gather information from multiple sources.
2.2.3–2.2.5	W.6-8.2 –Write how-to or explanatory texts using clear and sequential steps. W.6-8.4 –Maintain task-focused clarity.

<i>Pillar 3 –Employability Skills</i>	
Performance Indicators	Nevada Academic ELA Content Standards
3.1.1	RI.6-8.1 –Cite textual evidence to support analysis. W.6-8.2 –Write informative/explanatory texts using domain-specific vocabulary and analysis.
3.1.2	W.6-8.1 –Write arguments supported with reasoning. W.6-8.4 –Develop and organize clear writing focused on task, purpose, and audience. W.6-8.9 –Apply reading to support writing tasks.
3.2.2	W.6-8.1 –Persuasive writing to support claims and solutions. W.6-8.4 –Writing tailored to the audience.
3.2.4	W.6-8.1 –Present counterclaims and responses clearly in writing.
3.2.5	RI.6-8.6 –Analyze different points of view. W.6-8.9 –Use textual support to inform writing.
3.2.6–3.2.9	W.6-8.5 –Strengthen writing with planning, revising, and feedback. W.6-8.10 –Write routinely across time frames for multiple purposes. W.6-8.4 –Maintain focus and organization in writing to convey purpose and growth.
3.3.1	W.6-8.6 –Use tech to produce and publish writing.
3.3.3	W.6-8.4 –Produce coherent, audience-appropriate writing. W.6-8.10 –Practice writing in real-world formats and tasks.
3.3.4	RI.6.1–8.1 –Gather and interpret informational texts. W.6.8–8.8 –Conduct short research and draw evidence from sources.
3.3.5	W.6.1–8.1 –Construct logical arguments for decision-making. W.6.9–8.9 –Support conclusions with relevant evidence.

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<i>Pillar 4 –4PBL (Phenomenon, Place, Project, Problem)</i>	
Performance Indicators	Nevada Academic ELA Content Standards
4.1.1	SL.6-8.1 –Engage effectively in a range of collaborative discussions. W.6-8.6 –Use technology, including the internet, to produce and publish writing and collaborate with others.
4.1.2	W.6-8.4 –Produce clear writing with appropriate development. L.6-8.3 –Use language to convey meaning and style effectively.
4.2.1	RI.6-8.1 –Cite textual evidence to support analysis. RL.6-8.1 –Apply prior knowledge and integrate it with new information.
4.2.2	W.6-8.3 –Write narratives or explanatory texts that show concept mastery. SL.6-8.4 –Present claims and findings using evidence.
4.2.3	W.6-8.1 –Write arguments to support claims with clear reasons. RI.6-8.8 –Trace and evaluate arguments and claims in texts.
4.3.1	W.6-8.6 –Use technology to publish work. SL.6-8.4 –Present claims and findings clearly to diverse audiences.
4.3.2	SL.6-8.3 –Delineate a speaker’s argument and specific claims, evaluating reasoning. W.6-8.5 –Strengthen writing through planning, revising, editing, and feedback.

Alignment of the Middle School CTE Framework and the Mathematical Practices

Performance Indicators	Mathematical Practices
1.1.1, 1.1.4, 2.1.2, 2.2.3, 2.3.1, 3.1.2, 3.2.1, 3.3.4, 4.2.3	1. Make sense of problems and persevere in solving them.
1.1.2, 1.1.3, 2.1.1, 2.1.2, 2.2.2, 2.3.3, 3.1.1, 3.2.6, 3.3.2, 4.1.3, 4.2.2	2. Reason abstractly and quantitatively.
2.1.2, 2.1.3, 2.2.2, 2.3.1, 2.3.2, 3.2.3, 3.3.3, 4.1.3, 4.2.2	3. Construct viable arguments and critique the reasoning of others.
1.1.4, 2.1.1, 2.1.2, 2.2.3, 2.2.5, 2.3.2, 3.3.5, 4.1.1, 4.2.2	4. Model with mathematics.
2.1.3, 2.2.3, 2.3.2, 3.3.1	5. Use appropriate tools strategically.

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1.1.3, 2.1.1, 2.1.2, 2.2.4, 2.3.2, 3.3.4, 4.1.2	6. Attend to precision.
2.1.2, 2.1.3, 2.3.3, 3.2.7	7. Look for and make use of structure.
1.1.1, 2.1.2, 2.2.3, 2.3.1, 3.1.2, 4.2.3	8. Look for and express regularity in repeated reasoning.

Alignment of the Middle School CTE Framework and the Science and Engineering Practices

Performance Indicator	Science and Engineering Practices
1.1.1, 1.1.2, 1.1.3, 1.2.1, 2.1.2, 2.2.3, 2.3.1, 3.1.2, 3.2.1, 4.1.3	1. Asking questions (for science) and defining problems (for engineering).
1.1.4, 2.1.1, 2.1.2, 2.2.3, 2.2.5, 2.3.2, 3.3.5, 4.1.1, 4.2.2	2. Developing and using models.
2.1.2, 2.2.3, 2.3.2, 3.1.2, 3.3.4, 4.2.3	3. Planning and carrying out investigations.
2.1.2, 2.2.2, 2.3.3, 3.1.1, 3.3.3	4. Analyzing and interpreting data.
1.1.2, 1.1.3, 2.1.1, 2.1.2, 2.2.2, 2.3.3, 3.1.1, 3.2.6, 3.3.2, 4.1.3	5. Using mathematics and computational thinking.
2.1.3, 2.2.2, 2.3.1, 2.3.2, 3.2.3, 3.3.3, 4.2.2	6. Constructing explanations (for science) and designing solutions (for engineering).
2.1.2, 2.1.3, 2.2.2, 2.3.1, 3.2.3, 4.1.3	7. Engaging in argument from evidence.
2.1.1, 2.1.3, 2.2.4, 2.3.2, 3.2.7, 3.3.5	8. Obtaining, evaluating, and communicating information.