



Agriculture Welding Evaluation Form

2026 Curricular Materials Review

PUBLISHER INFORMATION

- Publisher Name:
- Title:
- ISBN #:
- Author:
- Copyright:
- Most Recently Published Edition and Website:
- Materials provided for evaluation:
- Intended Teacher Audience(s):
- Intended Student Audience(s):
- Is this curriculum in a digital format, print format, or both?

INSTRUCTION

Publishing Company

- Complete the curriculum evaluation form below. Please provide written justification as to how the material meets the criterion along with location references. If a justification requires additional space, please submit a response on an additional document.

Review Team Member:

- Please use information and attachments to complete the curriculum evaluation form.
- Explain any discrepancies between your findings and the provided information.
- Findings, explanations, and comments should directly reflect the rubric.



Scoring for Alignment to Program Standards:

To evaluate each course’s materials for alignment to [Idaho Agriculture Welding Program Standards](#), analyze the materials against the relevant criteria in the tables below. Instructional materials must meet most criteria and metrics to align with program standards.

0 Points No Alignment	1 Point Partial Alignment	2 Points High Alignment	NA Not Applicable
Standard for Agriculture Welding is not evident.	There is some evidence of the Standard for Agriculture Welding.	Materials explicitly align to and support the Standard for Agriculture Welding through regular and authentic engagement opportunities for students.	

OVERARCHING STANDARD: AGRICULTURE WELDING - 1.0: PROFESSIONAL ORGANIZATIONS AND LEADERSHIP

Performance Standard 1.1 Student Leadership in Career Technical Student Organizations (CTSO) and Professional Associations

Student Competencies by Performance Standard	Meets Criteria	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions in addition to page numbers.
1. CTE AW 1.1.1 Explore the role of professional organizations and/or associations in the agricultural welding industry.	0 1 2 N/A	
2. CTE AW 1.1.2 Define the value, role, and opportunities provided through career technical student organizations.	0 1 2 N/A	
3. CTE AW 1.1.3 Engage in career exploration and leadership development.	0 1 2 N/A	

Performance Standard 1.2: Supervised Agricultural Experience

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 1.2.1 Maintain SAE record books.	0 1 2 N/A	
2. CTE AW 1.2.2 Describe the proficiency award areas related to the SAE program area.	0 1 2 N/A	
3. CTE AW 1.2.3 Describe necessary steps to receive higher degrees in FFA.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 2.0: LAB ORGANIZATION AND SAFETY PROCEDURE

Performance Standard 2.1: General Lab Safety Rules and Procedures

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 2.1.1 Describe general shop safety rules and procedures (i.e., pass a safety test).	0 1 2 N/A	
2. CTE AW 2.1.2 Describe the Occupational Safety and Health Administration's (OSHA's) role in ensuring workplace safety.	0 1 2 N/A	
3. CTE AW 2.1.3 Describe and comply with the required use of safety glasses, ear protection, gloves, and shoes (i.e., personal protection equipment [PPE]) during lab/shop activities.	0 1 2 N/A	
4. CTE AW 2.1.4 Operate equipment according to manufacturer and general safety guidelines.	0 1 2 N/A	
5. CTE AW 2.1.5 Operate lifting equipment to manufacturer specifications.	0 1 2 N/A	

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
6. CTE AW 2.1.6 Describe work area ventilation requirements and best practices.	0 1 2 N/A	
7. CTE AW 2.1.7 Identify safety markings and what they indicate.	0 1 2 N/A	
8. CTE AW 2.1.8 Identify types of fire extinguishers and fire safety equipment.	0 1 2 N/A	
9. CTE AW 2.1.9 Describe classes of fire extinguishers and procedures for using fire extinguishers and fire safety equipment.	0 1 2 N/A	
10. CTE AW 2.1.10 Describe procedures for using eye wash stations.	0 1 2 N/A	
11. CTE AW 2.1.11 Describe and wear appropriate clothing for shop activities.	0 1 2 N/A	
12. CTE AW 2.1.12 Describe safe working procedures when working with high-voltage circuits.	0 1 2 N/A	
13. CTE AW 2.1.13 Describe and follow lockout/tagout procedures.	0 1 2 N/A	
14. CTE AW 2.1.14 Describe information contained on safety data sheets (SDS) and where they are kept.	0 1 2 N/A	
15. CTE AW 2.1.15 Maintain a safe, clean, and organized work area.	0 1 2 N/A	
16. CTE AW 2.1.16 Describe the components of a Hot Work Permit.	0 1 2 N/A	

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
17. CTE AW 2.1.17 Define a confined space.	0 1 2 N/A	

Performance Standard 2.2: Hand Tools

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 2.2.1 Identify hand tools and their functions.	0 1 2 N/A	
2. CTE AW 2.2.2 Demonstrate appropriate use of hand tools.	0 1 2 N/A	
3. CTE AW 2.2.3 Demonstrate appropriate cleaning, storage, and maintenance of hand tools.	0 1 2 N/A	

Performance Standard 2.3: Power Tools and Equipment

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 2.3.1 Describe power tools and their functions.	0 1 2 N/A	
2. CTE AW 2.3.2 Describe shop equipment and its functions.	0 1 2 N/A	
3. CTE AW 2.3.3 Demonstrate procedures for using power tools and equipment.	0 1 2 N/A	
4. CTE AW 2.3.4 Demonstrate procedures for cleaning, storing, and maintaining power tools and equipment.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 3.0: FUNDAMENTAL PRINT READING, MEASUREMENT TECHNIQUES

Performance Standard 3.1: Print Reading and Sketching/Drawing Practice

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 3.1.1 Interpret elements (e.g., title block information, dimensions, line types) of a technical drawing.	0 1 2 N/A	
2. CTE AW 3.1.2 Interpret industry standard welding symbols.	0 1 2 N/A	
3. CTE AW 3.1.3 Prepare a materials/cut list from a technical drawing (i.e., bill of material).	0 1 2 N/A	
4. CTE AW 3.1.4 Apply dimensioning techniques to drawings.	0 1 2 N/A	
5. CTE AW 3.1.5 Sketch or draw a welding project.	0 1 2 N/A	

Performance Standard 3.2: Measuring Techniques

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 3.2.1 Identify industry standard units of measure.	0 1 2 N/A	
2. CTE AW 3.2.2 Convert between customary standard and metric systems.	0 1 2 N/A	
3. CTE AW 3.2.3 Calculate size, area, and volume.	0 1 2 N/A	
4. CTE AW 3.2.4 Convert between fractions and decimals.	0 1 2 N/A	
5. CTE AW 3.2.5 Measure objects, using measurement tools common to welding.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 4.0: PROPERTIES OF METAL

Performance Standard 4.1: Material Types and Properties

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 4.1.1 Compare ferrous and non-ferrous metals.	0 1 2 N/A	
2. CTE AW 4.1.2 Identify forms and shapes of structural metals.	0 1 2 N/A	

Performance Standard 4.2: Filler Metals

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 4.2.1 Describe the American Welding Society (AWS) filler metal classification systems.	0 1 2 N/A	
2. CTE AW 4.2.2 Identify types of filler metals.	0 1 2 N/A	
3. CTE AW 4.2.3 Describe storage procedures for filler metals.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 5.0: SHIELDED METAL ARC WELDING (SMAW) TECHNIQUES

Performance Standard 5.1: Safety Procedures for SMAW

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 5.1.1 Describe types of welding current and polarity.	0 1 2 N/A	
2. CTE AW 5.1.2 Perform safety inspections of SMAW equipment and accessories.	0 1 2 N/A	
3. CTE AW 5.1.3 Maintain SMAW equipment and accessories.	0 1 2 N/A	

Performance Standard 5.2: SMAW on Carbon Steel

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 5.2.1 Set up for SMAW operations.	0 1 2 N/A	
2. CTE AW 5.2.2 Perform welds by operating SMAW equipment.	0 1 2 N/A	
3. CTE AW 5.2.3 Perform welds in the 1F position.	0 1 2 N/A	
4. CTE AW 5.2.4 Perform welds in the 2F position.	0 1 2 N/A	
5. CTE AW 5.2.5 Perform welds in the 3F position.	0 1 2 N/A	
6. CTE AW 5.2.6 Perform welds in the 1G position.	0 1 2 N/A	
7. CTE AW 5.2.7 Perform welds in the 2G position.	0 1 2 N/A	
8. CTE AW 5.2.8 Perform welds in the 3G position.	0 1 2 N/A	
9. CTE AW 5.2.9 Describe welds made in the 4F and 4G plate position.	0 1 2 N/A	
10. CTE AW 5.2.10 Identify 2G, 5G, and 6G pipe welding positions.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 6.0: WIRE-FEED PROCESSES

Performance Standard 6.1: Safety Procedures for GMAW/Wire-Feed

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 6.1.1 Describe the use of GMAW equipment.	0 1 2 N/A	
2. CTE AW 6.1.2 Describe GMAW transfer modes (e.g., spray transfer, globular, short circuit, pulse).	0 1 2 N/A	

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
3. CTE AW 6.1.3 Perform safety inspections of GMAW equipment and accessories.	0 1 2 N/A	
4. CTE AW 6.1.4 Maintain GMAW equipment and accessories.	0 1 2 N/A	
5. CTE AW 6.1.5 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures for GMAW equipment.	0 1 2 N/A	

Performance Standard 6.2: GMAW-S/Wire-Feed on Carbon Steel

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 6.2.1 Set up for GMAW-S operations.	0 1 2 N/A	
2. CTE AW 6.2.2 Perform welds by operating GMAW-S equipment.	0 1 2 N/A	
3. CTE AW 6.2.3 Perform welds in the 1F position.	0 1 2 N/A	
4. CTE AW 6.2.4 Perform welds in the 2F position.	0 1 2 N/A	
5. CTE AW 6.2.5 Perform welds in the 3F position.	0 1 2 N/A	
6. CTE AW 6.2.6 Perform welds in the 1G position.	0 1 2 N/A	
7. CTE AW 6.2.7 Perform welds in the 2G position.	0 1 2 N/A	
8. CTE AW 6.2.8 Perform welds in the 3G position.	0 1 2 N/A	

Performance Standard 6.3: Flux-Cored Arc Welding

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 6.3.1 Describe the FCAW-G/dual shield process.	0 1 2 N/A	
2. CTE AW 6.3.2 Describe the FCAW-S/inner shield process.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 7.0: GAS TUNGSTEN ARC WELDING (GTAW) TECHNIQUES**Performance Standard 7.1: Safety Procedures**

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 7.1.1 Perform safety inspections of GTAW equipment and accessories.	0 1 2 N/A	
2. CTE AW 7.1.2 Maintain GTAW equipment and accessories.	0 1 2 N/A	
3. CTE AW 7.1.3 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of GTAW equipment.	0 1 2 N/A	

Performance Standard 7.2: Welds Using GTAW on Carbon Steel

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 7.2.1 Set up for GTAW operations.	0 1 2 N/A	
2. CTE AW 7.2.2 Operate GTAW equipment.	0 1 2 N/A	
3. CTE AW 7.2.3 Perform welds in the 1F position.	0 1 2 N/A	

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
4. CTE AW 7.2.4 Perform welds in the 2F position.	0 1 2 N/A	
5. CTE AW 7.2.5 Perform welds in the 1G position.	0 1 2 N/A	

Performance Standard 7.3: Welds Using GTAW on Aluminum

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 7.3.1 Describe setup requirements for GTAW welding aluminum.	0 1 2 N/A	
2. CTE AW 7.3.2 Describe operation requirements for GTAW welding aluminum.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 8.0: THERMAL CUTTING PROCESSES

Performance Standard 8.1: Oxy-Fuel Gas Cutting (OFC)

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 8.1.1 Perform safety inspections of OFC equipment and accessories.	0 1 2 N/A	
2. CTE AW 8.1.2 Maintain OFC equipment and accessories.	0 1 2 N/A	
3. CTE AW 8.1.3 Demonstrate safe startup, shutdown, disassembly, and cylinder exchange procedures of OFC equipment.	0 1 2 N/A	
4. CTE AW 8.1.4 Set up for OFC operations.	0 1 2 N/A	
5. CTE AW 8.1.5 Perform cutting by operating OFC equipment.	0 1 2 N/A	

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
6. CTE AW 8.1.6 Perform straight, square-edge cutting operations in the flat position.	0 1 2 N/A	
7. CTE AW 8.1.7 Perform shape, square-edge cutting operations in the flat position.	0 1 2 N/A	
8. CTE AW 8.1.8 Perform straight, bevel-edge cutting operations in the flat position.	0 1 2 N/A	

Performance Standard 8.2: Plasma Arc Cutting (PAC) on Carbon Steel and Aluminum

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 8.2.1 Describe the PAC/plasma process.	0 1 2 N/A	
2. CTE AW 8.2.2 Determine the appropriate PAC/plasma settings for various types of metals.	0 1 2 N/A	
3. CTE AW 8.2.3 Perform safety inspections of PAC/plasma equipment and accessories.	0 1 2 N/A	
4. CTE AW 8.2.4 Maintain PAC/plasma equipment and accessories.	0 1 2 N/A	
5. CTE AW 8.2.5 Set up for PAC/plasma operations.	0 1 2 N/A	
6. CTE AW 8.2.6 Perform cutting by operating PAC/plasma equipment.	0 1 2 N/A	
7. CTE AW 8.2.7 Perform straight, square-edge cutting operations in the flat position.	0 1 2 N/A	
8. CTE AW 8.2.8 Perform shape, square-edge cutting operations in the flat position.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 9.0: WELDING CODES, INSPECTIONS, AND TESTING PRINCIPLES

Performance Standard 9.1: Welding Codes, Qualifications, and Certifications

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 9.1.1 Describe the role of welding inspection/inspector and testing in the industry.	0 1 2 N/A	
2. CTE AW 9.1.2 Identify weld imperfections (i.e., discontinuities, defects) and their causes.	0 1 2 N/A	
3. CTE AW 9.1.3 Describe welder qualification tests.	0 1 2 N/A	
4. CTE AW 9.1.4 Describe common destructive-testing methods.	0 1 2 N/A	
5. CTE AW 9.1.5 Describe common nondestructive-testing methods.	0 1 2 N/A	
6. CTE AW 9.1.6 Perform a visual inspection of welds.	0 1 2 N/A	

OVERARCHING STANDARD: AGRICULTURE WELDING - 10.0: FABRICATION FUNDAMENTALS

Performance Standard 10.1: Base Metal Preparation Fundamentals

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 10.1.1 Clean base metal for welding or cutting.	0 1 2 N/A	
2. CTE AW 10.1.2 Select the proper joint design based on welding procedure specifications (WPS) or instructor's direction.	0 1 2 N/A	
3. CTE AW 10.1.3 Mechanically bevel the edge of a mild steel plate, using a hand beveller and grinder.	0 1 2 N/A	

Performance Standard 10.2: Fabrication Techniques

Student Competencies by Performance Standard	Meets Criteria	Justification or Comments
1. CTE AW 10.2.1 Construct projects in proper sequence.	0 1 2 N/A	
2. CTE AW 10.2.2 Demonstrate setup of fabrication area, equipment, and materials.	0 1 2 N/A	
3. CTE AW 10.2.3 Lay out projects from welding prints, using appropriate tools.	0 1 2 N/A	
4. CTE AW 10.2.4 Check for joint misalignment and poor fit-up before and after welding.	0 1 2 N/A	
5. CTE AW 10.2.5 Check work for accuracy according to project plans.	0 1 2 N/A	
6. CTE AW 10.2.6 Describe distortion and methods for controlling it.	0 1 2 N/A	

Scoring for Best Practices and Assessment

0 Points No Alignment	1 Point Partial Alignment	2 Points High Alignment	NA Not Applicable
There is no evidence of the teaching practice.	The teaching practice is embedded in some lessons.	Materials regularly embed supports for teachers to implement best practices and assessment.	

Scoring for Alignment to Best Practices and Assessment:

Best Practices and Assessments	Meets Criteria	Justification or Comments
1. Materials contain clear statements and explanations of purpose, goals, and learning outcomes.	0 1 2 N/A	
2. Materials are systematic and sequential – prerequisite skills taught first and vertically aligned appropriately.	0 1 2 N/A	

Best Practices and Assessments	Meets Criteria	Justification or Comments
3. Materials provide questioning and discussion techniques that promote learning through thinking, discussion, and reflection.	0 1 2 N/A	
4. Digital materials and assessments are easy to edit and revise and access to distribute and/or print.	0 1 2 N/A	
5. Materials contain teacher-specific instructions and explanations for expanding content knowledge and lesson planning development.	0 1 2 N/A	
6. Materials include standard-specific formative assessments that can be used by all students (and teachers) to elicit and use evidence of learning that improve student understanding of intended outcomes to best inform next steps.	0 1 2 N/A	
7. Materials include standard-specific summative assessments for students to demonstrate mastery of standards and provide teacher with information related to proficiency of learning targets.	0 1 2 N/A	

Scoring for Multi-Tiered System of Support

0 Points No Alignment	1 Point Partial Alignment	2 Points High Alignment	NA Not Applicable
There is no evidence of the feature.	The feature is included and partially aligned to Tier 1 instruction.	The feature is included and fully aligned to Tier 1 instruction.	

Scoring for Alignment to Idaho Multi-Tiered Systems of Support:

Multi-tiered Instruction	Meets Criteria	Justification or Comments
1. Materials provide a variety of resources and strategies for small group instruction that can be used for differentiation in the general education classroom.	0 1 2 N/A	
2. Materials provide interventions aligned to core instruction. Interventions are more frequent and varied to support acquisition of identified skills. (Tier II)	0 1 2 N/A	
3. Materials provide interventions for students whom Tier I and II interventions have not adequately supported student growth. (Tier III)	0 1 2 N/A	

Scoring for Additional Indicators of Quality Materials

0 Points No Alignment	1 Point Partial Alignment	2 Points High Alignment	NA Not Applicable
There is no evidence of scaffolding, differentiation elements, or engaging tools.	There is some evidence of scaffolding, differentiation elements, or engaging tools.	Materials include scaffolding and differentiation elements as well as engaging tools.	

Scoring for Alignment to Additional Indicators of Quality Materials:

Indicators of Quality Materials	Meets Criteria	Justification or Comments
1. Materials include a high degree of teacher-student interaction including frequent responses from students with immediate feedback from teacher.	0 1 2 N/A	
2. Materials provide examples of scaffolding and guided practice.	0 1 2 N/A	

Indicators of Quality Materials	Meets Criteria	Justification or Comments
3. Materials include supports for differentiation, pacing, remediation and extension activities, and alternative teaching approaches.	0 1 2 N/A	
4. Materials provide instructional strategies to accommodate the learning differences of all students.	0 1 2 N/A	
5. Materials are relevant and interesting for grade level with authentic contexts and tools that allow students to make connections.	0 1 2 N/A	
6. Materials integrate technology and interactive tools, visuals, videos, manipulatives, or dynamic software to engage students.	0 1 2 N/A	
7. Materials are available in language(s) other than English.	0 1 2 N/A	

PRESENTATION AND DESIGN

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.
1. The material has an aesthetically appealing appearance.	
2. Digital and print materials are consistently formatted, visually focused, and uncluttered for efficient use.	

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.
3. The material has a reasonable and appropriate balance between text and illustration. The material has grade-appropriate font size.	
4. The illustrations clearly cross-reference the text, are directly relevant to the content (not simply decorative), and promote thinking, discussion, and problem solving.	
5. Non-text content (performance clips, images, maps, globes, graphs, pictures, charts, databases, and models) are accurate and well integrated into the text.	

Technology:

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.
1. Technology and digital media support, extend, and enhance learning experiences.	

Standards	Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers.
2. The material has “platform neutral” technology (i.e., cloud based) and availability for networking.	
3. The material has a user-friendly and interactive interface allowing the user to control (shift among activities).	

For Questions Contact

Content & Curriculum – Curricular Materials
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