



TEKS CORRELATIONS & SUGGESTED PACING GUIDE

Agricultural Mechanics & Metal Technologies



iCEV Agricultural Science Site

Meets 100% of TEKS

535 days of teaching material

Scope & Sequence	Lesson Title	TEKS	Days of Teaching
1	Personal & Occupational Health & Safety	1.D.i; 1.D.ii; 1.D.iii	11
2	Measurement in Construction	3.C.i; 3.C.ii; 3.C.iii; 3.C.iv; 11.E.ii	10
3	Mathematics in Construction	N/A	7
4	Basic Shop Safety	10.A.iii; 10.A.vi; 10.A.ix	5
5	Hand Tool ID & Terminology I	3.A.i; 3.A.ii; 3.A.iii; 3.A.iv	6
6	Hand Tool ID & Terminology II	3.A.i; 3.A.ii; 3.A.iii; 3.A.iv	6
7	Hand Tool ID & Terminology III	3.A.i; 3.A.ii; 3.A.iii; 3.A.iv	6
8	Portable Wood Power Tools - I: Safety, Operation & ID	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 10.A.i; 10.A.iv; 10.A.vii	2
9	Portable Wood Power Tools - II: Safety, Operation & ID	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 10.A.i; 10.A.iv; 10.A.vii	2
10	Large Wood Power Tools - I: Safety, Operation & ID	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 10.A.i; 10.A.iv; 10.A.vii	3
11	Large Wood Power Tools - II: Safety, Operation & ID	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 10.A.i; 10.A.iv; 10.A.vii	2
12	Large Metal Power Tools: Safety & Operation	9.B.i; 9.B.ii; 9.B.iii; 9.B.iv; 10.A.i; 10.A.iv; 10.A.vii	4
13	Striking & Struck Tools: Safety, Operation & ID	10.A.i; 10.A.iv; 10.A.vii	2
14	Marking & Measuring Devices	3.C.i; 3.C.ii; 3.C.iii; 3.C.iv	5
15	Project Management Skills	7.B.i; 7.B.ii; 11.D.i; 11.D.ii; 11.E.i	13
16	Introduction to Construction Drawings	11.B.i; 11.C.i; 11.C.ii; 11.C.iii; 11.C.iv; 11.C.v; 11.C.vi	10
17	Understanding Construction Codes, Regulations & Contracts	11.A.iii	8
18	Computer Aided Design Techniques	11.B.i	5
19	Construction Machines & Equipment	11.A.ii	9
20	Building Construction: Basic Site Evaluation	11.A.i; 11.A.iii	2
21	Building Construction: Basic Surveying	11.A.i	2
22	Building Construction: Basic Site Development	11.A.ii; 11.A.iii	2
23	Concrete: Composition & Mixing	6.A.i; 6.B.i; 6.B.ii	2
24	Concrete: Constructing Forms & Curing	6.A.i; 6.B.i; 6.B.ii	2
25	Installation: Foundation & Sub-Flooring	7.A.i; 7.C.i; 10.A.i; 10.A.iv; 10.A.vii	11
26	Installation: Framing	7.A.i; 7.C.i; 10.A.i; 10.A.iv; 10.A.vii	8
27	Installation: Drywall	7.A.i; 7.C.i; 10.A.i; 10.A.iv; 10.A.vii	6
28	Principles of Electricity	4.A.i	6
29	Installation: Electrical Wiring & Control Systems	4.A.ii; 4.B.i; 4.B.ii; 4.B.iii; 4.B.iv; 10.A.i; 10.A.iv; 10.A.vii	18
30	Installation: Doors	7.A.i; 7.C.i; 7.D.i; 7.D.ii; 10.A.i; 10.A.iv; 10.A.vii	5
31	Installation: Windows	7.A.i; 7.C.i; 10.A.i; 10.A.iv; 10.A.vii	5
32	Installation: Roofing	7.A.i; 7.C.i; 10.A.i; 10.A.iv; 10.A.vii	9
33	Installation: Plumbing Equipment & Fixtures	5.A.i; 5.A.ii; 5.B.i; 10.A.i; 10.A.iv; 10.A.vii	5
34	Welding Shop Safety	10.A.iii; 10.A.vi; 10.A.ix	8
35	Welding Blueprints & Symbols	3.C.i; 3.C.ii; 3.C.iii; 3.C.iv	7
36	Introduction to Metals	9.A.i; 10.B.i; 10.B.ii; 10.B.iii; 10.B.iv; 10.B.v; 10.B.vi	7

Scope & Sequence	Lesson Title	TEKS	Days of Teaching
37	Oxy-Fuel Set-Up & Safety	9.C.i; 9.C.ii	4
38	Oxy-Fuel Welding & Brazing	9.C.i; 9.C.iii	8
39	Oxy-Fuel Cutting	9.C.ii; 9.C.iv; 11.E.iii	6
40	Shielded Metal Arc Welding: Preparation & Safety	9.D.i; 9.D.ii; 10.A.ii; 10.A.v; 10.A.viii	7
41	Shielded Metal Arc Welding: 6010 Electrodes	9.E.i	7
42	Shielded Metal Arc Welding: 7018 Electrodes	9.E.i	7
43	Shielded Metal Arc Welding: AWS EDU-6 Entry Level Welder Qualification Test	9.E.i	8
44	Gas Metal Arc Welding: Equipment, Set-Up & Maintenance	9.D.i; 9.D.ii; 10.A.ii; 10.A.v; 10.A.viii	5
45	Gas Metal Arc Welding: Aluminum	9.E.i	8
46	Gas Metal Arc Welding: Carbon Steel	9.E.i	10
47	Gas Metal Arc Welding: Sheet Metal	9.E.i	8
48	Gas Metal Arc Welding: Stainless Steel	9.E.i	8
49	Gas Tungsten Arc Welding: Equipment & Set-Up	9.D.i; 9.D.ii; 10.A.ii; 10.A.v; 10.A.viii	4
50	Gas Tungsten Arc Welding: Carbon Steel	9.E.i	7
51	Gas Tungsten Arc Welding: Aluminum	9.E.i	5
52	Gas Tungsten Arc Welding: Pipe	9.E.i	8
53	Gas Tungsten Arc Welding: Stainless Steel	9.E.i	7
54	Flux Cored Arc Welding	9.D.i; 9.D.ii; 9.E.i; 10.A.ii; 10.A.v; 10.A.viii	7
55	Air Carbon Arc Cutting	9.E.ii	7
56	Plasma Arc Cutting	9.E.ii	6
57	Hydraulic Pipe Bending	9.B.i; 9.B.iii; 11.E.ii; 11.E.iii	4
58	Fencing Tools & Techniques	8.A.i; 8.B.i; 8.B.ii	7
59	Non-Metallic Fabrication Techniques	11.F.i	4
60	Four-Stroke Engine: Overview	3.B.iii, 3.B.iv	4
61	Four-Stroke Engine: Components & Operation	3.B.iii, 3.B.iv	5
62	Four-Stroke Engine: Fuel System	3.B.iii, 3.B.iv	8
63	Four-Stroke Engine: Emissions System	3.B.iii, 3.B.iv	5
64	Four-Stroke Engine: Electrical System	3.B.iii, 3.B.iv	6
65	Four-Stroke Engine: Governor Systems	3.B.iii, 3.B.iv	2
66	Four-Stroke Engine: Servicing & Troubleshooting	3.B.iii, 3.B.iv	7
67	Small Gas Engine: Disassembly Procedures	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 10.A.ii; 10.A.v	8
68	Small Gas Engine: Assembly Procedures	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv	8
69	Small Engine Tools, Parts & Equipment Identification & Operation	10.A.i; 10.A.iv; 10.A.vii	15
70	Small Engine Technology: Troubleshooting, Repair, Service & Maintenance	10.A.viii	8
71	Electrical Motor Selection & Maintenance	3.B.i; 3.B.ii; 3.B.iii; 3.B.iv; 4.C.i; 10.A.ii; 10.A.v; 10.A.viii	5
72	The World of Agriculture	1.B.i; 1.B.ii; 1.C.i; 1.C.ii; 1.C.iii	12

Scope & Sequence	Lesson Title	TEKS	Days of Teaching
73	Career Cluster: Agriculture, Food & Natural Resources	1.A.i; 1.A.ii; 1.C.i; 1.C.ii; 1.C.iii	7
74	Power, Structural & Technical Systems	1.A.i; 1.A.ii; 1.B.i; 1.B.ii; 1.B.iii; 1.B.iv; 1.B.v; 1.B.vi	2
75	Formulas for Career Success: Career Testing & Investigation	1.A.i	8
76	Internships 101: The Importance of Internships	1.A.i	2
77	Employability Skills	1.B.iv; 1.B.v; 1.B.vi; 1.E.i; 1.E.ii	5
78	Workplace Issues	1.D.i; 1.D.ii; 1.D.iii	4
79	First Aid Basics	1.D.iv	8
80	Citizenship Basics	1.F.i; 1.F.ii; 1.F.iii	9
81	Blue & Gold Basics: SAE Programs	2.A.i; 2.A.ii; 2.A.iii; 2.A.iv; 2.A.v; 2.B.i	5
82	Introduction to Record Keeping	2.B.i	3
83	Blue & Gold Basics: What is FFA?	2.C.i; 2.D.i; 2.D.ii	6
84	Blue & Gold Basics: FFA Officers & Meetings	2.C.i	8
85	Blue & Gold Basics: Career Development Events	2.C.i	2

Correlations to the Texas Essential Knowledge and Skills (TEKS): Student/Teacher Materials

Subject	Chapter 130. Career and Technical Education, Subchapter A. Agriculture, Food, and Natural Resources
Subchapter	Subchapter A. Agriculture, Food, And Natural Resources
Course	§130.26. Agricultural Mechanics and Metal Technologies (One Credit), Adopted 2015.
Publisher	CEV Multimedia, Ltd.
Program Title	iCEV Agricultural Science Site
Program ISBN	9.78161E+12
TEKS Coverage (%)	100.00%

(a) **General Requirements.** This course is recommended for students in Grades 10-12. Recommended prerequisite: Principles of Agriculture, Food, and Natural Resources. Students shall be awarded one credit for successful completion of this course.

(b) Introduction.

- (1) Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
- (2) The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
- (3) Agricultural Mechanics and Metal Technologies is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills and technologies in a variety of settings.
- (4) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
- (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c) Knowledge and Skills.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(A) identify career development and entrepreneurship opportunities in the field of power, structural, and technical agricultural systems	(i) identify career development opportunities in the field of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Career Cluster: Agriculture, Food & Natural Resources	
			Student/Teacher	Activity	9781614592082	Project - Career Comparison Project - Career Cube; Project - Career Interview; Project - Local Search; Project - The Career for Me	Career Cluster: Agriculture, Food & Natural Resources
			Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems; Activity - Career Ranking	Power, Structural & Technical Systems; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Formulas for Career Success: Career Testing & Investigation; Activity - Virtual Job Shadowing	Formulas for Career Success: Career Testing & Investigation; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Internships 101: The Importance of Internships	

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(A) identify career development and entrepreneurship opportunities in the field of power, structural, and technical agricultural systems	(ii) identify entrepreneurship opportunities in the field of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Career Cluster: Agriculture, Food & Natural Resources	
			Student/Teacher	Activity	9781614592082	Project - Entrepreneurial Adventures	Career Cluster: Agriculture, Food & Natural Resources
			Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Activity	9781614592082	Activity - Career Ranking	Power, Structural & Technical Systems
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems	(i) apply competencies related to resources of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Activity	9781614592082	The World of Agriculture	
			Student/Teacher	Narrative	9781614592082	Activity - Career Opportunities; Activity - Career Opportunities Teacher Instruction Sheet	The World of Agriculture
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems	(ii) apply competencies related to information of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Narrative	9781614592082	The World of Agriculture	
			Student/Teacher	Activity	9781614592082	Activity - Career Opportunities; Activity - Career Opportunities Teacher Instruction Sheet	The World of Agriculture
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems	(iii) apply competencies related to interpersonal skills of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Narrative	9781614592082	Employability Skills	
			Student/Teacher	Activity	9781614592082	Activity - Skills Flashcards; Project - Personal Skills	Employability Skills

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems	(iv) apply competencies related to problem solving of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Narrative	9781614592082	Employability Skills	
			Student/Teacher	Activity	9781614592082	Activity - Problem Solving; Activity - Problem Solving Answer Key; Activity - Critical & Creative; Activity - Critical & Creative Answer Key	Employability Skills
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems	(v) apply competencies related to critical thinking of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Narrative	9781614592082	Employability Skills	
			Student/Teacher	Activity	9781614592082	Activity - Problem Solving; Activity - Problem Solving Answer Key; Activity - Critical & Creative; Activity - Critical & Creative Answer Key	Employability Skills
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems	(vi) apply competencies related to systems of operation of power, structural, and technical agricultural systems	Student/Teacher	Narrative	9781614592082	Power, Structural & Technical Systems	
			Student/Teacher	Narrative	9781614592082	Employability Skills	
			Student/Teacher	Activity	9781614592082	Activity - Problem Solving; Activity - Problem Solving Answer Key; Activity - Critical & Creative; Activity - Critical & Creative Answer Key	Employability Skills

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(C) examine licensing, certification, and credentialing requirements to maintain compliance with industry requirements	(i) examine licensing requirements to maintain compliance with industry requirements	Student/Teacher	Narrative	9781614592082	Career Cluster: Agriculture, Food & Natural Resources	
			Student/Teacher	Activity	9781614592082	Project - The Career for Me	Career Cluster: Agriculture, Food & Natural Resources
			Student/Teacher	Narrative	9781614592082	The World of Agriculture	
			Student/Teacher	Activity	9781614592082	Activity - Career Opportunities; Activity - Career Opportunities Teacher Instruction Sheet	The World of Agriculture
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(C) examine licensing, certification, and credentialing requirements to maintain compliance with industry requirements	(ii) examine certification requirements to maintain compliance with industry requirements	Student/Teacher	Narrative	9781614592082	Career Cluster: Agriculture, Food & Natural Resources	
			Student/Teacher	Activity	9781614592082	Project - The Career for Me	Career Cluster: Agriculture, Food & Natural Resources
			Student/Teacher	Narrative	9781614592082	The World of Agriculture	
			Student/Teacher	Activity	9781614592082	Activity - Career Opportunities; Activity - Career Opportunities Teacher Instruction Sheet	The World of Agriculture
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(C) examine licensing, certification, and credentialing requirements to maintain compliance with industry requirements	(iii) examine credentialing requirements to maintain compliance with industry requirements	Student/Teacher	Narrative	9781614592082	Career Cluster: Agriculture, Food & Natural Resources	
			Student/Teacher	Activity	9781614592082	Project - The Career for Me	Career Cluster: Agriculture, Food & Natural Resources
			Student/Teacher	Narrative	9781614592082	The World of Agriculture	
			Student/Teacher	Activity	9781614592082	Activity - Career Opportunities; Activity - Career Opportunities Teacher Instruction Sheet	The World of Agriculture

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(D) demonstrate knowledge of personal and occupational health, safety, and first-aid practices in the industry	(i) demonstrate knowledge of personal health practices in the industry	Student/Teacher	Narrative	9781614592082	Workplace Issues	
			Student/Teacher	Activity	9781614592082	Activity - Facts & Opinions in Occupational Safety Practices; Activity - Federal Laws for Safety; Project - Creating an Employee Handbook; Project - Determining Health Practices in the Workplace; Project - In Your Own Words OSHA in the Workplace ; Project - Wellness Practices in the Workplace	Workplace Issues
			Student/Teacher	Narrative	9781614592082	Personal & Occupational Health & Safety	
			Student/Teacher	Activity	9781614592082	Activity - Hazard Solutions; Activity - Hazard Solutions Teacher Instruction Sheet; Activity - Personal Protective Equipment; Activity - Safety Inspection Checklist; Project - OSHA; Project - Public Service Announcement	Personal & Occupational Health & Safety
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(D) demonstrate knowledge of personal and occupational health, safety, and first-aid practices in the industry	(ii) demonstrate knowledge of occupational health practices in the industry	Student/Teacher	Narrative	9781614592082	Workplace Issues	
			Student/Teacher	Activity	9781614592082	Activity - Facts & Opinions in Occupational Safety Practices; Activity - Federal Laws for Safety; Project - Creating an Employee Handbook; Project - Determining Health Practices in the Workplace; Project - In Your Own Words OSHA in the Workplace ; Project - Wellness Practices in the Workplace	Workplace Issues
			Student/Teacher	Narrative	9781614592082	Personal & Occupational Health & Safety	
			Student/Teacher	Activity	9781614592082	Activity - Hazard Solutions; Activity - Hazard Solutions Teacher Instruction Sheet; Activity - Personal Protective Equipment; Activity - Safety Inspection Checklist; Project - OSHA; Project - Public Service Announcement	Personal & Occupational Health & Safety

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(D) demonstrate knowledge of personal and occupational health, safety, and first-aid practices in the industry	(iii) demonstrate knowledge of safety practices in the industry	Student/Teacher	Narrative	9781614592082	Workplace Issues	
			Student/Teacher	Activity	9781614592082	Activity - Facts & Opinions in Occupational Safety Practices; Activity - Federal Laws for Safety; Project - Creating an Employee Handbook; Project - Determining Health Practices in the Workplace; Project - In Your Own Words OSHA in the Workplace ; Project - Wellness Practices in the Workplace	Workplace Issues
			Student/Teacher	Narrative	9781614592082	Personal & Occupational Health & Safety	
			Student/Teacher	Activity	9781614592082	Activity - Hazard Solutions; Activity - Hazard Solutions Teacher Instruction Sheet; Activity - Personal Protective Equipment; Activity - Safety Inspection Checklist; Project - OSHA; Project - Public Service Announcement	Personal & Occupational Health & Safety
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(D) demonstrate knowledge of personal and occupational health, safety, and first-aid practices in the industry	(iv) demonstrate knowledge of first-aid practices in the industry	Student/Teacher	Narrative	9781614592082	First Aid Basics	
			Student/Teacher	Activity	9781614592082	Activity - CPR; Activity - EMT Role Play; Activity - EMT Role Play Teacher Instruction Sheet; Project - First Aid Procedure Brochure; Project - First Aid Procedures Brochure Teacher Instruction Sheet	First Aid Basics
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(E) identify employer expectations and appropriate work habits	(i) identify employer expectations	Student/Teacher	Narrative	9781614592082	Employability Skills	
			Student/Teacher	Activity	9781614592082	Project - Personal Skills; Activity - Skills Flashcards; Activity - Work Habits: Good vs Bad; Activity - Work Habits: Good vs Bad Answer Key	Employability Skills

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(E) identify employer expectations and appropriate work habits	(ii) identify appropriate work habits	Student/Teacher	Narrative	9781614592082	Employability Skills	
			Student/Teacher	Activity	9781614592082	Project - Personal Skills; Activity - Skills Flashcards; Activity - Work Habits: Good vs Bad; Activity - Work Habits: Good vs Bad Answer Key	Employability Skills
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(F) demonstrate characteristics of good citizenship, including advocacy, stewardship, and community leadership	(i) demonstrate characteristics of good citizenship, including advocacy	Student/Teacher	Narrative	9781614592082	Citizenship Basics	
			Student/Teacher	Activity	9781614592082	Activity - Citizenship: What's it to You?; Project - Serving the Community	Citizenship Basics
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(F) demonstrate characteristics of good citizenship, including advocacy, stewardship, and community leadership	(ii) demonstrate characteristics of good citizenship, including stewardship	Student/Teacher	Narrative	9781614592082	Citizenship Basics	
			Student/Teacher	Activity	9781614592082	Activity - Citizenship: What's it to You?; Project - Serving the Community	Citizenship Basics
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(F) demonstrate characteristics of good citizenship, including advocacy, stewardship, and community leadership	(iii) demonstrate characteristics of good citizenship, including community leadership	Student/Teacher	Narrative	9781614592082	Citizenship Basics	
			Student/Teacher	Activity	9781614592082	Activity - Citizenship: What's it to You?; Project - Serving the Community	Citizenship Basics
(2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	(i) plan a supervised agriculture experience program as an experiential learning activity	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: SAE Programs	
			Student/Teacher	Activity	9781614592082	Activity - Matching Experiences; Activity - Matching Experiences Answer Key; Activity - Selecting the Appropriate SAE; Activity - Selecting the Appropriate SAE Answer Key; Project - SAE Planning; Project - SAE Planning Contract; Student Handout - Factors for SAE Selection	Blue & Gold Basics: SAE Programs

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	(ii) propose a supervised agriculture experience program as an experiential learning activity	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: SAE Programs	
			Student/Teacher	Activity	9781614592082	Activity - Matching Experiences; Activity - Matching Experiences Answer Key; Activity - Selecting the Appropriate SAE; Activity - Selecting the Appropriate SAE Answer Key; Project - SAE Planning; Project - SAE Planning Contract; Student Handout - Factors for SAE Selection	Blue & Gold Basics: SAE Programs
(2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	(iii) conduct a supervised agriculture experience program as an experiential learning activity	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: SAE Programs	
			Student/Teacher	Activity	9781614592082	Activity - Matching Experiences; Activity - Matching Experiences Answer Key; Activity - Selecting the Appropriate SAE; Activity - Selecting the Appropriate SAE Answer Key; Project - SAE Planning; Project - SAE Planning Contract; Student Handout - Factors for SAE Selection	Blue & Gold Basics: SAE Programs
(2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	(iv) document a supervised agriculture experience program as an experiential learning activity	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: SAE Programs	
			Student/Teacher	Activity	9781614592082	Activity - Matching Experiences; Activity - Matching Experiences Answer Key; Activity - Selecting the Appropriate SAE; Activity - Selecting the Appropriate SAE Answer Key; Project - SAE Planning; Project - SAE Planning Contract; Student Handout - Factors for SAE Selection	Blue & Gold Basics: SAE Programs

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	(v) evaluate a supervised agriculture experience program as an experiential learning activity	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: SAE Programs	
			Student/Teacher	Activity	9781614592082	Activity - Matching Experiences; Activity - Matching Experiences Answer Key; Activity - Selecting the Appropriate SAE; Activity - Selecting the Appropriate SAE Answer Key; Project - SAE Planning; Project - SAE Planning Contract; Student Handout - Factors for SAE Selection	Blue & Gold Basics: SAE Programs
(2) The student develops a supervised agriculture experience program. The student is expected to:	(B) apply proper record-keeping skills as they relate to the supervised agriculture experience	(i) apply proper record-keeping skills as they relate to the supervised agriculture experience	Student/Teacher	Narrative	9781614592082	Introduction to Record Keeping	
			Student/Teacher	Activity	9781614592082	Project - Introduction to Record Keeping	Introduction to Record Keeping
			Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: SAE Programs	
			Student/Teacher	Activity	9781614592082	Project - SAE Planning; Project - SAE Planning Contract	Blue & Gold Basics: SAE Programs
(2) The student develops a supervised agriculture experience program. The student is expected to:	(C) participate in youth leadership opportunities to create a well-rounded experience program	(i) participate in youth leadership opportunities to create a well-rounded experience program	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: What is FFA?	
			Student/Teacher	Activity	9781614592082	Student Handout - Program of Activities; Activity - Program of Activities; Project - FFA Group Lesson Plan	Blue & Gold Basics: What is FFA?
			Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: FFA Officers & Meetings	
			Student/Teacher	Activity	9781614592082	Activity - FFA Officer Duties; Activity - FFA Officer Duties Answer Key	Blue & Gold Basics: FFA Officers & Meetings
			Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: Career Development Events	
(2) The student develops a supervised agriculture experience program. The student is expected to:	(D) produce and participate in a local program of activities using a strategic planning process	(i) produce a local program of activities using a strategic planning process	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: What is FFA?	
			Student/Teacher	Activity	9781614592082	Student Handout - Program of Activities; Activity - Program of Activities; Project - FFA Group Lesson Plan	Blue & Gold Basics: What is FFA?

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(2) The student develops a supervised agriculture experience program. The student is expected to:	(D) produce and participate in a local program of activities using a strategic planning process	(ii) participate in a local program of activities using a strategic planning process	Student/Teacher	Narrative	9781614592082	Blue & Gold Basics: What is FFA?	
			Student/Teacher	Activity	9781614592082	Student Handout - Program of Activities; Activity - Program of Activities; Project - FFA Group Lesson Plan	Blue & Gold Basics: What is FFA?
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(A) select, use, maintain, and store appropriate hand tools to perform a given task	(i) select appropriate hand tools to perform a given task	Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology I	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology I
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology II	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology II
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology III	
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(A) select, use, maintain, and store appropriate hand tools to perform a given task	(ii) use appropriate hand tools to perform a given task	Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology I	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology I
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology II	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology II
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology III	
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(A) select, use, maintain, and store appropriate hand tools to perform a given task	(iii) maintain appropriate hand tools to perform a given task	Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology I	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology I
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology II	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology II
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology III	

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(A) select, use, maintain, and store appropriate hand tools to perform a given task	(iv) store appropriate hand tools to perform a given task	Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology I	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology I
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology II	
			Student/Teacher	Activity	9781614592082	Project - Tool Presentation	Hand Tool ID & Terminology II
			Student/Teacher	Narrative	9781614592082	Hand Tool ID & Terminology III	
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(B) select, use, maintain, and store appropriate power equipment such as tools powered by electric, pneumatic, and internal combustion engines	(i) select appropriate power equipment	Student/Teacher	Narrative	9781614592082	Portable Wood Power Tools – I: Safety, Operation & ID; Portable Wood Power Tools – II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Tool Set-Up; Project - Wood Power Tool Use	Portable Wood Power Tools – I: Safety, Operation & ID
			Student/Teacher	Activity	9781614592082	Activity - Drill Bits; Project - Design and Build	Portable Wood Power Tools – II: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance; Small Gas Engine: Disassembly Procedure; Small Gas Engine: Assembly Procedure	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(B) select, use, maintain, and store appropriate power equipment such as tools powered by electric, pneumatic, and internal combustion engines	(ii) use appropriate power equipment	Student/Teacher	Narrative	9781614592082	Portable Wood Power Tools – I: Safety, Operation & ID; Portable Wood Power Tools – II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Band Saw Puzzle; Project - Large Wood Power Tool Use	Large Wood Power Tools - I: Safety, Operation & ID
			Student/Teacher	Activity	9781614592082	Project - Using the Tools	Large Wood Power Tools - II: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance; Small Gas Engine: Disassembly Procedure; Small Gas Engine: Assembly Procedure	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(B) select, use, maintain, and store appropriate power equipment such as tools powered by electric, pneumatic, and internal combustion engines	(iii) maintain appropriate power equipment	Student/Teacher	Narrative	9781614592082	Portable Wood Power Tools – I: Safety, Operation & ID; Portable Wood Power Tools – II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Tool Set-Up; Project - Wood Power Tool Use	Portable Wood Power Tools – I: Safety, Operation & ID
			Student/Teacher	Activity	9781614592082	Activity - Drill Bits; Project - Design and Build	Portable Wood Power Tools – II: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance; Small Gas Engine: Disassembly Procedure; Small Gas Engine: Assembly Procedure	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(B) select, use, maintain, and store appropriate power equipment such as tools powered by electric, pneumatic, and internal combustion engines	(iv) store appropriate power equipment	Student/Teacher	Narrative	9781614592082	Portable Wood Power Tools – I: Safety, Operation & ID; Portable Wood Power Tools – II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Tool Set-Up; Project - Wood Power Tool Use	Portable Wood Power Tools – I: Safety, Operation & ID
			Student/Teacher	Activity	9781614592082	Activity - Drill Bits; Project - Design and Build	Portable Wood Power Tools – II: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance; Small Gas Engine: Disassembly Procedure; Small Gas Engine: Assembly Procedure	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(C) select and use measuring and marking devices	(i) select measuring devices	Student/Teacher	Narrative	9781614592082	Welding Blueprints & Symbols	
			Student/Teacher	Activity	9781614592082	Activity - Scales & Measurements; Activity - Scales & Measurements Answer Key	Welding Blueprints & Symbols
			Student/Teacher	Narrative	9781614592082	Measurement in Construction	
			Student/Teacher	Activity	9781614592082	Activity - Measuring; Activity - Measuring Answer Key	Measurement in Construction
			Student/Teacher	Narrative	9781614592082	Marking & Measuring Devices; Project - The Amazing Race Teacher Instruction Sheet	Marking & Measuring Devices; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(C) select and use measuring and marking devices	(ii) select marking devices	Student/Teacher	Narrative	9781614592082	Welding Blueprints & Symbols	
			Student/Teacher	Activity	9781614592082	Activity - Scales & Measurements; Activity - Scales & Measurements Answer Key	Welding Blueprints & Symbols
			Student/Teacher	Narrative	9781614592082	Measurement in Construction	
			Student/Teacher	Activity	9781614592082	Activity - Measuring; Activity - Measuring Teacher Instruction Sheet	Measurement in Construction
			Student/Teacher	Narrative	9781614592082	Marking & Measuring Devices; Project - The Amazing Race Teacher Instruction Sheet	Marking & Measuring Devices; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(C) select and use measuring and marking devices	(iii) use measuring devices	Student/Teacher	Narrative	9781614592082	Welding Blueprints & Symbols	
			Student/Teacher	Activity	9781614592082	Activity - Scales & Measurements; Activity - Scales & Measurements Answer Key	Welding Blueprints & Symbols
			Student/Teacher	Narrative	9781614592082	Measurement in Construction	
			Student/Teacher	Activity	9781614592082	Activity - Measuring; Activity - Measuring Teacher Instruction Sheet	Measurement in Construction
			Student/Teacher	Narrative	9781614592082	Marking & Measuring Devices; Project - The Amazing Race Teacher Instruction Sheet	Marking & Measuring Devices; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(3) The student follows operating instructions for tools and equipment to perform a given task. The student is expected to:	(C) select and use measuring and marking devices	(iv) use marking devices	Student/Teacher	Narrative	9781614592082	Welding Blueprints & Symbols	
			Student/Teacher	Activity	9781614592082	Activity - Scales & Measurements; Activity - Scales & Measurements Answer Key	Welding Blueprints & Symbols
			Student/Teacher	Narrative	9781614592082	Measurement in Construction	
			Student/Teacher	Activity	9781614592082	Activity - Measuring; Activity - Measuring Teacher Instruction Sheet	Measurement in Construction
			Student/Teacher	Narrative	9781614592082	Marking & Measuring Devices; Project - The Amazing Race Teacher Instruction Sheet	Marking & Measuring Devices; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(4) The student identifies and performs electric wiring skills. The student is expected to:	(A) identify principles of electricity and wiring terminology	(i) identify principles of electricity	Student/Teacher	Narrative	9781614592082	Principles of Electricity	
			Student/Teacher	Activity	9781614592082	Activity - Electrical Glossary; Project - Electrical Installation	Principles of Electricity
(4) The student identifies and performs electric wiring skills. The student is expected to:	(A) identify principles of electricity and wiring terminology	(ii) identify wiring terminology	Student/Teacher	Narrative	9781614592082	Installation: Electrical Wiring & Control Systems	
			Student/Teacher	Activity	9781614592082	Vocabulary Handout	Installation: Electrical Wiring & Control Systems
(4) The student identifies and performs electric wiring skills. The student is expected to:	(B) install electric wiring components and fixtures to comply with governmental regulations and applicable codes	(i) install electric wiring components to comply with governmental regulations	Student/Teacher	Narrative	9781614592082	Installation: Electrical Wiring & Control Systems	
			Student/Teacher	Activity	9781614592082	Activity - Installing Electrical Wiring; Activity - Installing Electrical Wiring Teacher Instruction Sheet; Project - Codes & Regulations	Installation: Electrical Wiring & Control Systems

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(4) The student identifies and performs electric wiring skills. The student is expected to:	(B) install electric wiring components and fixtures to comply with governmental regulations and applicable codes	(ii) install electric wiring components to comply with applicable codes	Student/Teacher	Narrative	9781614592082	Installation: Electrical Wiring & Control Systems	
			Student/Teacher	Activity	9781614592082	Activity - Installing Electrical Wiring; Activity - Installing Electrical Wiring Teacher Instruction Sheet; Project - Codes & Regulations	Installation: Electrical Wiring & Control Systems
(4) The student identifies and performs electric wiring skills. The student is expected to:	(B) install electric wiring components and fixtures to comply with governmental regulations and applicable codes	(iii) install electric fixtures to comply with governmental regulations	Student/Teacher	Narrative	9781614592082	Installation: Electrical Wiring & Control Systems	
			Student/Teacher	Activity	9781614592082	Activity - Installing Electrical Wiring; Activity - Installing Electrical Wiring Teacher Instruction Sheet; Project - Codes & Regulations	Installation: Electrical Wiring & Control Systems
(4) The student identifies and performs electric wiring skills. The student is expected to:	(B) install electric wiring components and fixtures to comply with governmental regulations and applicable codes	(iv) install electric fixtures to comply with applicable codes	Student/Teacher	Narrative	9781614592082	Installation: Electrical Wiring & Control Systems	
			Student/Teacher	Activity	9781614592082	Activity - Installing Electrical Wiring; Activity - Installing Electrical Wiring Teacher Instruction Sheet; Project - Codes & Regulations	Installation: Electrical Wiring & Control Systems
(4) The student identifies and performs electric wiring skills. The student is expected to:	(C) maintain electric motors	(i) maintain electric motors	Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance	
			Student/Teacher	Activity	9781614592082	Project - Create and Observe an Electrical Motor Teacher Instruction Sheet	Electrical Motor Selection & Maintenance
(5) The student performs plumbing skills. The student is expected to:	(A) identify and use plumbing tools	(i) identify plumbing tools	Student/Teacher	Narrative	9781614592082	Installation: Plumbing Equipment & Fixtures	
			Student/Teacher	Activity	9781614592082	Activity - Tool & Material ID; Activity - Tool & Material ID Answer Key	Installation: Plumbing Equipment & Fixtures
(5) The student performs plumbing skills. The student is expected to:	(A) identify and use plumbing tools	(ii) use plumbing tools	Student/Teacher	Narrative	9781614592082	Installation: Plumbing Equipment & Fixtures	
			Student/Teacher	Activity	9781614592082	Activity - Tool & Material ID; Activity - Tool & Material ID Answer Key	Installation: Plumbing Equipment & Fixtures

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(5) The student performs plumbing skills. The student is expected to:	(B) identify plumbing fixtures	(i) identify plumbing fixtures	Student/Teacher	Narrative	9781614592082	Installation: Plumbing Equipment & Fixtures	
			Student/Teacher	Activity	9781614592082	Activity - Tool & Material ID: Activity - Tool & Material ID Answer Key	Installation: Plumbing Equipment & Fixtures
(6) The student performs concrete construction skills. The student is expected to:	(A) project cost estimates for materials	(i) project cost estimates for materials	Student/Teacher	Narrative	9781614592082	Concrete: Composition & Mixing	
			Student/Teacher	Narrative	9781614592082	Concrete: Constructing Forms & Curing	
			Student/Teacher	Activity	9781614592082	Activity - Building a Form & Curing Concrete	Concrete: Constructing Forms & Curing
(6) The student performs concrete construction skills. The student is expected to:	(B) form and pour concrete slabs	(i) form concrete slabs	Student/Teacher	Narrative	9781614592082	Concrete: Composition & Mixing	
			Student/Teacher	Narrative	9781614592082	Concrete: Constructing Forms & Curing	
			Student/Teacher	Activity	9781614592082	Activity - Building a Form & Curing Concrete	Concrete: Constructing Forms & Curing
(6) The student performs concrete construction skills. The student is expected to:	(B) form and pour concrete slabs	(ii) pour concrete slabs	Student/Teacher	Narrative	9781614592082	Concrete: Composition & Mixing	
			Student/Teacher	Narrative	9781614592082	Concrete: Constructing Forms & Curing	
			Student/Teacher	Activity	9781614592082	Activity - Building a Form & Curing Concrete	Concrete: Constructing Forms & Curing

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(7) The student performs carpentry skills. The student is expected to:	(A) identify materials used in agricultural construction	(i) identify materials used in agricultural construction	Student/Teacher	Narrative	9781614592082	Installation: Drywall	
			Student/Teacher	Activity	9781614592082	Activity - Tool & Material ID; Activity - Tool & Material ID Answer Key	Installation: Drywall
			Student/Teacher	Narrative	9781614592082	Installation: Doors; Activity - Tool & Material ID; Activity - Tool & Material ID Answer Key	Installation: Doors; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Installation: Windows; Activity - Tool & Material ID; Activity - Tool & Material ID Answer Key	Installation: Windows; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Installation: Roofing; Installation: Foundation & Subflooring; Installation: Framing	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
(7) The student performs carpentry skills. The student is expected to:	(B) identify elements of a cost estimate and prepare a bid package for a planned project	(i) identify elements of a cost estimate	Student/Teacher	Narrative	9781614592082	Project Management Skills	
			Student/Teacher	Activity	9781614592082	Project - Project Phases & Organization	Project Management Skills
(7) The student performs carpentry skills. The student is expected to:	(B) identify elements of a cost estimate and prepare a bid package for a planned project	(ii) prepare a bid package for a planned project	Student/Teacher	Narrative	9781614592082	Project Management Skills	
			Student/Teacher	Activity	9781614592082	Project - Project Phases & Organization	Project Management Skills

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(7) The student performs carpentry skills. The student is expected to:	(C) demonstrate basic carpentry skills	(i) demonstrate basic carpentry skills	Student/Teacher	Narrative	9781614592082	Installation: Drywall; Installation: Doors; Installation: Windows	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Installing Drywall; Activity - Installing Drywall Teacher Instruction Sheet	Installation: Drywall
			Student/Teacher	Activity	9781614592082	Activity - Installing a Door; Activity - Installing a Door Teacher Instruction Sheet	Installation: Doors
			Student/Teacher	Activity	9781614592082	Activity - Installing a Window; Activity - Installing a Window Teacher Instruction Sheet	Installation: Windows
			Student/Teacher	Narrative	9781614592082	Installation: Roofing; Installation: Framing; Installation: Foundation & Subflooring	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
(7) The student performs carpentry skills. The student is expected to:	(D) paint and protect a project with coatings	(i) paint a project with coatings	Student/Teacher	Narrative	9781614592082	Installation: Doors	
			Student/Teacher	Activity	9781614592082	Student Handout - Paint vs. Stain	Installation: Doors
(7) The student performs carpentry skills. The student is expected to:	(D) paint and protect a project with coatings	(ii) protect a project with coatings	Student/Teacher	Narrative	9781614592082	Installation: Doors	
			Student/Teacher	Activity	9781614592082	Student Handout - Paint vs. Stain	Installation: Doors
(8) The student identifies fencing methods. The student is expected to:	(A) select fencing materials	(i) select fencing materials	Student/Teacher	Narrative	9781614592082	Fencing Tools & Techniques	
			Student/Teacher	Activity	9781614592082	Activity - Determining the Material	Fencing Tools & Techniques
(8) The student identifies fencing methods. The student is expected to:	(B) plan and install fences	(i) plan fences	Student/Teacher	Narrative	9781614592082	Fencing Tools & Techniques	
			Student/Teacher	Activity	9781614592082	Activity - Fence Planning	Fencing Tools & Techniques
(8) The student identifies fencing methods. The student is expected to:	(B) plan and install fences	(ii) install fences	Student/Teacher	Narrative	9781614592082	Fencing Tools & Techniques	
			Student/Teacher	Activity	9781614592082	Project - Building the Fence; Activity - Maintenance Table; Activity - Maintenance Table Answer Key	Fencing Tools & Techniques

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(A) identify types of metal	(i) identify types of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Project - Metal Identification Map	Introduction to Metals
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(B) cut, file, shape, and drill metal	(i) cut metal	Student/Teacher	Narrative	9781614592082	Large Metal Power Tools: Safety and Operation	
			Student/Teacher	Activity	9781614592082	Activity - Using The Tools	Large Metal Power Tools: Safety and Operation
			Student/Teacher	Narrative	9781614592082	Hydraulic Pipe Bending	
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(B) cut, file, shape, and drill metal	(ii) file metal	Student/Teacher	Narrative	9781614592082	Large Metal Power Tools: Safety and Operation	
			Student/Teacher	Activity	9781614592082	Activity - Using The Tools	Large Metal Power Tools: Safety and Operation
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(B) cut, file, shape, and drill metal	(iii) shape metal	Student/Teacher	Narrative	9781614592082	Large Metal Power Tools: Safety and Operation	
			Student/Teacher	Activity	9781614592082	Activity - Using The Tools	Large Metal Power Tools: Safety and Operation
			Student/Teacher	Narrative	9781614592082	Hydraulic Pipe Bending	
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(B) cut, file, shape, and drill metal	(iv) drill metal	Student/Teacher	Narrative	9781614592082	Large Metal Power Tools: Safety and Operation	
			Student/Teacher	Activity	9781614592082	Activity - Using The Tools	Large Metal Power Tools: Safety and Operation
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(C) select and operate oxy-fuel welding and cutting equipment to meet standards	(i) select oxy-fuel welding equipment	Student/Teacher	Narrative	9781614592082	Oxy-Fuel Set-Up & Safety	
			Student/Teacher	Activity	9781614592082	Student Handout - Components Tree Chart; Project - Components Tree Chart; Project - Welding & Cutting Processes Comparison	Oxy-Fuel Set-Up & Safety
			Student/Teacher	Narrative	9781614592082	Oxy-Fuel Welding & Brazing	

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(C) select and operate oxy-fuel welding and cutting equipment to meet standards	(ii) select oxy-fuel cutting equipment	Student/Teacher	Narrative	9781614592082	Oxy-Fuel Set-Up & Safety	
			Student/Teacher	Activity	9781614592082	Student Handout - Components Tree Chart; Project - Components Tree Chart; Project - Welding & Cutting Processes Comparison	Oxy-Fuel Set-Up & Safety
			Student/Teacher	Narrative	9781614592082	Oxy-Fuel Cutting	
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(C) select and operate oxy-fuel welding and cutting equipment to meet standards	(iii) operate oxy-fuel welding equipment to meet standards	Student/Teacher	Narrative	9781614592082	Oxy-Fuel Welding & Brazing	
			Student/Teacher	Activity	9781614592082	Activity - Welding Practice; Project - Weld Types	Oxy-Fuel Welding & Brazing
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(C) select and operate oxy-fuel welding and cutting equipment to meet standards	(iv) operate oxy-fuel cutting equipment to meet standards	Student/Teacher	Narrative	9781614592082	Oxy-Fuel Cutting	
			Student/Teacher	Activity	9781614592082	Activity - Welding Practice; Project - Venn Diagram Comparison	Oxy-Fuel Cutting
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(D) select and operate electric-arc welding equipment to meet standards	(i) select electric-arc welding equipment	Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: Preparation & Safety	
			Student/Teacher	Activity	9781614592082	Project - Inspection & Set-Up	Shielded Metal Arc Welding: Preparation & Safety
			Student/Teacher	Narrative	9781614592082	Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; Activity - Gas Metal Arc Welding Set-Up	Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Gas Tungsten Arc Welding: Equipment & Set-Up; Activity - Gas Tungsten Arc Welder Set-Up	Gas Tungsten Arc Welding: Equipment & Set-Up; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Flux Cored Arc Welding; Project - Pros and Cons of Flux Cored Arc Welding	Flux Cored Arc Welding; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(D) select and operate electric-arc welding equipment to meet standards	(ii) operate electric-arc welding equipment	Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: Preparation & Safety	
			Student/Teacher	Activity	9781614592082	Project - Inspection & Set-Up	Shielded Metal Arc Welding: Preparation & Safety
			Student/Teacher	Narrative	9781614592082	Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; Activity - Gas Metal Arc Welding Set-Up	Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Gas Tungsten Arc Welding: Equipment & Set-Up; Activity - Gas Tungsten Arc Welder Set-Up	Gas Tungsten Arc Welding: Equipment & Set-Up; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Flux Cored Arc Welding: Project - Pros and Cons of Flux Cored Arc Welding	Flux Cored Arc Welding; PLEASE NOTE: Due to space limitations, the narrative and associated activity are listed on one line. Several lessons and corresponding activities satisfy this standard.
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(E) perform specialty welding and cutting techniques to meet standards	(i) perform specialty welding techniques to meet standards	Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: 6010 Electrodes; Shielded Metal Arc Welding: 7018 Electrodes	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Gas Metal Arc Welding: Aluminum; Gas Metal Arc Welding: Carbon Steel; Gas Metal Arc Welding: Sheet Metal; Gas Metal Arc Welding: Stainless Steel	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Aluminum Welding	Gas Metal Arc Welding: Aluminum
			Student/Teacher	Narrative	9781614592082	Gas Tungsten Arc Welding: Carbon Steel; Gas Tungsten Arc Welding: Pipe; Gas Tungsten Arc Welding: Aluminum; Gas Tungsten Arc Welding: Stainless Steel	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: AWS EDU-6 Entry Level Welder Qualification Test; Flux Cored Arc Welding	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(9) The student performs appropriate cold and hot metal techniques. The student is expected to:	(E) perform specialty welding and cutting techniques to meet standards	(ii) perform specialty cutting techniques to meet standards	Student/Teacher	Narrative	9781614592082	Air Carbon Arc Cutting	
			Student/Teacher	Activity	9781614592082	Activity - Welding Practice; Project - Step by Step	Air Carbon Arc Cutting
			Student/Teacher	Narrative	9781614592082	Plasma Arc Cutting	
			Student/Teacher	Activity	9781614592082	Activity - Cutting Practice; Project - Metal Cut Out	Plasma Arc Cutting
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(i) select appropriate tools	Student/Teacher	Narrative	9781614592082	Striking & Struck Tools: Safety, Operation & ID; Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID; Large Metal Power Tools: Safety and Operation; Portable Wood Power Tools - I: Safety, Operation & ID; Portable Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Tool Use; Project - Tool Demonstration	Striking & Struck Tools: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Small Engine Tools & Equipment: Identification & Operation	
			Student/Teacher	Activity	9781614592082	Activity - Tool & Equipment ID; Activity - Tool & Equipment ID Answer Key	Small Engine Tools & Equipment: Identification & Operation
			Student/Teacher	Narrative	9781614592082	Installation: Plumbing Equipment & Fixtures; Installation: Electrical Wiring & Control Systems; Installation: Drywall; Installation: Doors; Installation: Windows; Installation: Roofing; Installation: Foundation & Sub-Flooring; Installation: Framing	PLEASE NOTE: Due to space limitations, more than one narrative lesson is listed on one line. Each lesson is accompanied by Tool & Material ID Activity.
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(ii) select appropriate equipment	Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: Preparation & Safety; Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; Gas Tungsten Arc Welding: Equipment & Set-Up; Flux Cored Arc Welding	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Small Gas Engine: Disassembly	
			Student/Teacher	Activity	9781614592082	Project - Real World Uses	Small Gas Engine: Disassembly
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance	
			Student/Teacher	Activity	9781614592082	Project - Create and Observe an Electrical Motor Teacher Instruction Sheet	Electrical Motor Selection & Maintenance

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(iii) select appropriate facilities	Student/Teacher	Narrative	9781614592082	Basic Shop Safety	
			Student/Teacher	Activity	9781614592082	Student Handout - Basic Shop Safety	Basic Shop Safety
			Student/Teacher	Narrative	9781614592082	Welding Shop Safety	
			Student/Teacher	Activity	9781614592082	Activity - Shop Layout	Welding Shop Safety
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(iv) use appropriate tools	Student/Teacher	Narrative	9781614592082	Striking & Struck Tools: Safety, Operation & ID; Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID; Large Metal Power Tools: Safety and Operation; Portable Wood Power Tools - I: Safety, Operation & ID; Portable Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Tool Use: Project - Tool Demonstration	Striking & Struck Tools: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Small Engine Tools & Equipment: Identification & Operation	
			Student/Teacher	Activity	9781614592082	Activity - Tool & Equipment ID; Activity - Tool & Equipment ID Answer Key	Small Engine Tools & Equipment: Identification & Operation
			Student/Teacher	Narrative	9781614592082	Installation: Plumbing Equipment & Fixtures; Installation: Electrical Wiring & Control Systems; Installation: Drywall; Installation: Doors; Installation: Windows; Installation: Roofing; Installation: Foundation & Sub-Flooring; Installation: Framing	PLEASE NOTE: Due to space limitations, more than one narrative lesson is listed on one line. Each lesson is accompanied by Tool & Material ID Activity.
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(v) use appropriate equipment	Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: Preparation & Safety; Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; Gas Tungsten Arc Welding: Equipment & Set-Up; Flux Cored Arc Welding	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Small Gas Engine: Disassembly	
			Student/Teacher	Activity	9781614592082	Project - Real World Uses	Small Gas Engine: Disassembly
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance	
			Student/Teacher	Activity	9781614592082	Project - Create and Observe an Electrical Motor Teacher Instruction Sheet	Electrical Motor Selection & Maintenance

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(vi) use appropriate facilities	Student/Teacher	Narrative	9781614592082	Basic Shop Safety	
			Student/Teacher	Activity	9781614592082	Student Handout - Basic Shop Safety	Basic Shop Safety
			Student/Teacher	Narrative	9781614592082	Welding Shop Safety	
			Student/Teacher	Activity	9781614592082	Activity - Shop Layout	Welding Shop Safety
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(vii) maintain appropriate tools	Student/Teacher	Narrative	9781614592082	Striking & Struck Tools: Safety, Operation & ID; Large Wood Power Tools - I: Safety, Operation & ID; Large Wood Power Tools - II: Safety, Operation & ID; Large Metal Power Tools: Safety and Operation; Portable Wood Power Tools - I: Safety, Operation & ID; Portable Wood Power Tools - II: Safety, Operation & ID	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Activity	9781614592082	Activity - Tool Use: Project - Tool Demonstration	Striking & Struck Tools: Safety, Operation & ID
			Student/Teacher	Narrative	9781614592082	Small Engine Tools & Equipment: Identification & Operation	
			Student/Teacher	Narrative	9781614592082	Activity - Tool & Equipment ID; Activity - Tool & Equipment ID Answer Key	Small Engine Tools & Equipment: Identification & Operation
			Student/Teacher	Narrative	9781614592082	Installation: Plumbing Equipment & Fixtures; Installation: Electrical Wiring & Control Systems; Installation: Drywall; Installation: Doors; Installation: Windows; Installation: Roofing; Installation: Foundation & Sub-Flooring; Installation: Framing	PLEASE NOTE: Due to space limitations, more than one narrative lesson is listed on one line. Each lesson is accompanied by Tool & Material ID Activity.
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(viii) maintain appropriate equipment	Student/Teacher	Narrative	9781614592082	Shielded Metal Arc Welding: Preparation & Safety; Gas Metal Arc Welding: Equipment, Set-Up & Maintenance; Gas Tungsten Arc Welding: Equipment & Set-Up; Flux Cored Arc Welding	PLEASE NOTE: Due to space limitations, more than one narrative correlation lesson is listed on this line. Several lessons and corresponding activities satisfy this standard.
			Student/Teacher	Narrative	9781614592082	Small Gas Engine Technology: Troubleshooting, Repair, Service & Maintenance	
			Student/Teacher	Activity	9781614592082	Activity - Carburetor Disassembly; Activity - Carburetor Disassembly Teacher Instruction Sheet	Small Gas Engine Technology: Troubleshooting, Repair, Service & Maintenance
			Student/Teacher	Narrative	9781614592082	Electrical Motor Selection & Maintenance	
			Student/Teacher	Activity	9781614592082	Project - Create and Observe an Electrical Motor Teacher Instruction Sheet	Electrical Motor Selection & Maintenance

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(A) select, use, and maintain appropriate tools, equipment, and facilities	(ix) maintain appropriate facilities	Student/Teacher	Narrative	9781614592082	Basic Shop Safety	
			Student/Teacher	Activity	9781614592082	Student Handout - Basic Shop Safety	Basic Shop Safety
			Student/Teacher	Narrative	9781614592082	Welding Shop Safety	
			Student/Teacher	Activity	9781614592082	Activity - Shop Layout	Welding Shop Safety
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(B) identify and determine properties, types, and uses of metal	(i) identify properties of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Activity - Mechanical Properties Comparison; Activity - Thermal Properties; Activity - Thermal Properties Teacher Instruction Sheet; Project - Metal Properties and Uses	Introduction to Metals
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(B) identify and determine properties, types, and uses of metal	(ii) identify types of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Project - Metal Identification Map; Activity - Metal Comparisons; Activity - Metal Comparisons Teacher Instruction Sheet	Introduction to Metals
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(B) identify and determine properties, types, and uses of metal	(iii) identify uses of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Project - Metal Properties and Uses	Introduction to Metals
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(B) identify and determine properties, types, and uses of metal	(iv) determine properties of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Activity - Mechanical Properties Comparison; Activity - Thermal Properties; Activity - Thermal Properties Teacher Instruction Sheet; Project - Metal Properties and Uses	Introduction to Metals

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(B) identify and determine properties, types, and uses of metal	(v) determine types of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Project - Metal Identification Map; Activity - Metal Comparisons; Activity - Metal Comparisons Teacher Instruction Sheet	Introduction to Metals
(10) The student applies processes relating to assembly of equipment in agricultural systems operations. The student is expected to:	(B) identify and determine properties, types, and uses of metal	(vi) determine uses of metal	Student/Teacher	Narrative	9781614592082	Introduction to Metals	
			Student/Teacher	Activity	9781614592082	Project - Metal Properties and Uses	Introduction to Metals
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(A) analyze site, equipment, and permit requirements	(i) analyze site requirements	Student/Teacher	Narrative	9781614592082	Building Construction: Basic Site Evaluation	
			Student/Teacher	Activity	9781614592082	Project - Evaluate a Site	Building Construction: Basic Site Evaluation
			Student/Teacher	Narrative	9781614592082	Building Construction: Basic Surveying	
			Student/Teacher	Activity	9781614592082	Project - Site Surveying	Building Construction: Basic Surveying
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(A) analyze site, equipment, and permit requirements	(ii) analyze equipment requirements	Student/Teacher	Narrative	9781614592082	Building Construction: Basic Site Development	
			Student/Teacher	Narrative	9781614592082	Construction Machines & Equipment	
			Student/Teacher	Activity	9781614592082	Activity - Pros and Cons; Project - Equipment Research; Project - Equipment Research Teacher Instruction Sheet	Construction Machines & Equipment
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(A) analyze site, equipment, and permit requirements	(iii) analyze permit requirements	Student/Teacher	Narrative	9781614592082	Building Construction: Basic Site Evaluation	
			Student/Teacher	Narrative	9781614592082	Building Construction: Basic Site Development	
			Student/Teacher	Narrative	9781614592082	Understanding Construction Codes, Regulations & Contracts	
			Student/Teacher	Activity	9781614592082	Activity - Permit Requirements	Understanding Construction Codes, Regulations & Contracts

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(B) operate computer-aided drafting design software	(i) operate computer-aided drafting design software	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Narrative	9781614592082	Computer-Aided Design Techniques	
			Student/Teacher	Activity	9781614592082	Project - Computer-Aided Design Techniques	Computer-Aided Design Techniques
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(C) develop, read, and interpret designs and sketches	(i) develop designs	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Activity	9781614592082	Activity - Drawing Identification; Project - Creating a Blueprint	Introduction to Construction Drawings
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(C) develop, read, and interpret designs and sketches	(ii) develop sketches	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Activity	9781614592082	Activity - Drawing Identification; Activity - Symbol Recognition; Student Handout - Construction Drawing Symbols; Project - Creating a Blueprint	Introduction to Construction Drawings
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(C) develop, read, and interpret designs and sketches	(iii) read designs	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Activity	9781614592082	Activity - Drawing Identification; Activity - Symbol Recognition; Student Handout - Construction Drawing Symbols; Project - Creating a Blueprint	Introduction to Construction Drawings
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(C) develop, read, and interpret designs and sketches	(iv) read sketches	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Activity	9781614592082	Activity - Drawing Identification; Activity - Symbol Recognition; Student Handout - Construction Drawing Symbols; Project - Creating a Blueprint	Introduction to Construction Drawings

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(C) develop, read, and interpret designs and sketches	(v) interpret designs	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Activity	9781614592082	Activity - Drawing Identification; Activity - Symbol Recognition; Student Handout - Construction Drawing Symbols; Project - Creating a Blueprint	Introduction to Construction Drawings
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(C) develop, read, and interpret designs and sketches	(vi) interpret sketches	Student/Teacher	Narrative	9781614592082	Introduction to Construction Drawings	
			Student/Teacher	Activity	9781614592082	Activity - Drawing Identification; Activity - Symbol Recognition; Student Handout - Construction Drawing Symbols; Project - Creating a Blueprint	Introduction to Construction Drawings
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(D) estimate material needs and costs	(i) estimate material needs	Student/Teacher	Narrative	9781614592082	Project Management Skills	
			Student/Teacher	Activity	9781614592082	Project - Project Phases & Organization	Project Management Skills
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(D) estimate material needs and costs	(ii) estimate material costs	Student/Teacher	Narrative	9781614592082	Project Management Skills	
			Student/Teacher	Activity	9781614592082	Project - Project Phases & Organization	Project Management Skills
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(E) measure, mark, and cut material	(i) measure material	Student/Teacher	Narrative	9781614592082	Project Management Skills	
			Student/Teacher	Activity	9781614592082	Project - Project Phases & Organization	Project Management Skills
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(E) measure, mark, and cut material	(ii) mark material	Student/Teacher	Narrative	9781614592082	Measurement in Construction	
			Student/Teacher	Activity	9781614592082	Activity - Measuring; Activity - Measuring Teacher Instruction sheet	Measurement in Construction
			Student/Teacher	Narrative	9781614592082	Hydraulic Pipe Bending	

Knowledge and Skills Statement	Student Expectation	Breakout	Item Type	Citation Type	Component ISBN	Page (s)	Specific Location
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(E) measure, mark, and cut material	(iii) cut material	Student/Teacher	Narrative	9781614592082	Oxy-Fuel Cutting	
			Student/Teacher	Activity	9781614592082	Activity - Welding Practice	Oxy-Fuel Cutting
			Student/Teacher	Narrative	9781614592082	Hydraulic Pipe Bending	
(11) The student plans and performs cost-effective construction techniques. The student is expected to:	(F) perform specialized nonmetallic fabrication techniques	(i) perform specialized nonmetallic fabrication techniques	Student/Teacher	Narrative	9781614592082	Non-Metallic Fabrication Techniques	
			Student/Teacher	Activity	9781614592082	Vocabulary Handout; Project - Non-Metallic Fabrication Techniques	Non-Metallic Fabrication Techniques