

Agricultural Mechanics & Metal Technologies

At-A-Glance - Lamar CISD

Ongoing Skills Imbedded All Year	Professional Standards/Employability Skills/Technical Skills		
		AMMT 2(A) The student will plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity. AMMT 2(B) The student will apply proper record-keeping skills as they relate to the supervised agriculture experience. AMMT 2(C) The student will participate in youth leadership opportunities to create a well-rounded experience program. AMMT 2(D) The student will produce and participate in a local program of activities using a strategic planning process.	
Ongoing Ways to Show	AET record book.		
Grading Period	Unit Name	Estimated Time Frame	TEKS
Grading Period 1 29 Days	Safety and Career Development	29 Days	OSHA 127.17d 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 1D, 1A, 1C, 1E, 1F, 1B, 2A, 2B, 2C, 2D, 7A; AWS
	127.17(d)(1) The student will explain and discuss the responsibilities of workers and employers to promote safety and health in the workplace and the rights of workers to a secure workplace. 127.17(d)(2) The student will explain and discuss the importance of OSHA standards and OSHA requirements for organizations, how OSHA inspections are conducted, and the role of national and state regulatory entities. 127.17(d)(3) The student will explain the role industrial hygiene plays in occupational safety and explain various types of industrial hygiene hazards, including physical, chemical, biological, and ergonomic. 127.17(d)(4) The student will identify and explain the appropriate use of types of personal protective equipment used in industry. 127.17(d)(5) The student will discuss the importance of safe walking and working surfaces in the workplace and best practices for preventing or reducing slips, trips, and falls in the workplace. 127.17(d)(6) The student will describe types of electrical hazards in the workplace and the risks associated with these hazards and describe control methods to prevent electrical hazards in the workplace. 127.17(d)(7) The student will analyze the hazards of handling, storing, using, and transporting hazardous materials and identify and discuss ways to reduce exposure to hazardous materials in the workplace. 127.17(d)(8) The student will identify workplace health and safety resources, including emergency plans and Safety Data Sheets, and discuss how these resources are used to make decisions in the workplace. 127.17(d)(9) The student will describe the elements of a safety and health program, including management leadership, worker participation, and education and training. 127.17(d)(10) The student will explain the purpose and importance of written emergency action plans and fire protection plans and describe key components of each such as evacuation plans and emergency exit routes, list of fire hazards, and identification of emergency personnel. 127.17(d)(11) The student will explain the components of a hazard communication program. 127.17(d)(12) The student will explain and give examples of safety and health training requirements specified by standard setting organizations. AMMT 1(D) The student will demonstrate knowledge of personal and occupational health, safety, and first-aid practices in the industry. AMMT 1(A) The student will identify career development and entrepreneurship opportunities in the field of power, structural, and technical agricultural systems. AMMT 1(C) The student will examine licensing, certification, and credentialing requirements to maintain compliance with industry requirements. AMMT 1(E) The student will identify employers' expectations, and appropriate work habits. AMMT 1(F) The student will demonstrate characteristics of good citizenship, including advocacy, stewardship, and community leadership. AMMT 1(B) The student will apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation of power, structural, and technical agricultural systems. AMMT 2(A) The student will plan, propose, conduct, document, and evaluate a supervised agricultural experience program as an experiential learning activity. AMMT 2(B) The student will apply proper record-keeping skills as they relate to the supervised agriculture experience. AMMT 2(C) The student will participate in youth leadership opportunities to create a well-rounded experience program. AMMT 2(D) The student will produce and participate in a local program of activities using a strategic planning process. AMMT 7(A) The student will identify materials used in agricultural construction. AWS The student will identify materials used in welding.		
	Carpentry	4 Days	7C
	AMMT 7(C) The student will demonstrate basic carpentry skills.		

Grading Period 2 27 Days	Tools & Equipment	4 Days	10A
	AMMT 10(A) The student will select, use, and maintain appropriate tools, equipment, and facilities.		
	Metal	10 Days	9A, 10B
	AMMT 9(A) The student will identify types of metal. AMMT 10(B) The student will identify and determine properties, types, and uses of metal.		
	Welding Equipment	5 Days	AWS
	AWS The student will select and maintain welding equipment.		
	Welding Terms	4 Days	AWS
AWS The students will demonstrate knowledge of basic welding terminology.			
Grading Period 3 28 Days	Oxy-Fuel	10 Days	9C
	AMMT 9(C) The student will select and operate oxy-fuel welding and cutting equipment to meet standards.		
	Electric Arc	11 Days	9D
	AMMT 9(D) The student will select and operate electric-arc welding equipment to meet standards.		
	Plasma Arc	7 Days	AWS
AWS The student will select plasma arc cutting equipment and operate to meet standards.			
Grading Period 4 31 Days	Project Process	4 Days	11A
	AMMT 11(A) The student will analyze site, equipment, and permit requirements.		
	CAD	3 Days	11B
	AMMT 11(B) The student will operate computer-aided drafting design software.		
	Designs/Sketches	3 Days	11C
	AMMT 11(C) The student will develop, read, and interpret designs and sketches.		
	Material Costs	4 Days	11D
	AMMT 11(D) The student will estimate material needs and costs.		
	Material	4 Days	11E
	AMMT 11(E) The student will measure, mark, and cut material.		
	Nonmetallic Fabrication	4 Days	11F
	AMMT 11(F) The student will perform specialized nonmetallic fabrication techniques.		
Metallic Fabrication	5 Days	AWS	
AWS The student will perform specialized metallic fabrication techniques.			

	Cost & Bid	4 Days	7B, AWS
	AMMT 7(B) and AWS The student will identify elements of a cost estimate and prepare a bid package for a planned project.		
Grading Period 5 30 Days	Fences	2 Days	8A
	AMMT 8(A) The student will select fencing materials.		
	Install Fences	2 Days	8B
	AMMT 8(B) The student will plan and install fences.		
	Tools Instructions	8 Days	3A, 3B
	AMMT 3(A) The student will select, use, maintain and store appropriate hand tools to perform a given task. AMMT 3(B) The student will select, use, maintain, and store appropriate power equipment such as tools powered by electric, pneumatic, and internal combustion engines.		
	Tools/Measuring	7 Days	3C, AWS
	AMMT 3(C) The student will select and use measuring and marking devices. AWS The student will apply accurate readings of measuring devices, both U.S. customary and metric.		
	Measure/Cut	11 Days	9B, AWS
AMMT 9(B) The student will cut, file, shape, and drill metal. AWS The student will identify acceptable cuts.			
Grading Period 6 27 Days	Electricity	3 Days	4A
	AMMT 4(A) The student will identify principles of electric and wiring terminology.		
	Electric Wiring	2 Days	4B, 4C
	AMMT 4(B) The student will install electric wiring components and fixtures to comply with government regulations and applicable codes. AMMT 4(C) The student will maintain electric motors.		
	Plumbing Tools	2 Days	5A
	AMMT 5(A) The student will identify and select plumbing tools.		
	Plumbing Equipment	2 Days	5B
	AMMT 5(B) The student will identify plumbing fixtures.		
	Cost Estimate	2 Days	6A
	AMMT 6(A) The student will project cost estimates for materials.		
	Concrete	2 Days	6B
	AMMT 6(B) The student will form and pour concrete slabs.		
	Welding	11 Days	9E
AMMT 9(E) The student will perform specialty welding and cutting techniques to meet standards.			
Paint	3 Days	7D	
AMMT 7(D) The student will paint and protect a project with coating.			