



TEAM ACTIVITY

2025 GUIDANCE

Revised: 14 August 2025

ASSOCIATE SUPERINTENDENT CONTACT INFORMATION

- Dr. Justin Pulley, Agricultural Education and Communication
- TARLETON STATE UNIVERSITY
- Telephone: **Work** - (254) - 968-1690 **Cell** - (936) - 328-2876
- Email: jpulley@tarleton.edu

Purpose

Team members will work together to solve multi-system agricultural problem(s) selected from the skills and problem-solving of the five system competency areas. Team members will use the materials and equipment provided to solve the problem(s) and prepare a computer-generated report. Teams will organize themselves, assign duties and complete tasks together or separately depending on individual skills and abilities. Each team will determine the activities needed to accomplish the tasks and communicate with each team member.

Personal Protective Equipment (PPE)

- Team members will be required to wear personal protective equipment suitable for working safely with power tools for lumber and plasma cutting.
- Safety glasses with side shields that meet ANSI Z87.1 standards.
- Clothing that does not have loose or frayed ends that could get tangled in power tools.
- Clothing is suitable for working in a shop.
- Official FFA dress is not appropriate for this team activity.

Specific directions

ENGINE STAND CONSTRUCTION – PLASMA CUTTING AND WOOD CONSTRUCTION

Teams will:

- Interpret and convert measurements from design plans.
- Mark and cut wood construction materials.
- Mark and cut metal materials.
- Assemble materials.

Note:

- Teams will be required to construct an engine stand.
- Teams will be given specific directions via a flash drive. This document will provide a blueprint of the project and outline of the written component.
- Team members will work cooperatively to complete all parts of the team activity.
- At the same time, team members will document their process and create a log of activities.
- Teams will be given two hours to complete all tasks for this team activity.

At the conclusion of the activity, teams will also submit a written report. This written report will include:

- A title page
- An introductory paragraph
- Description of team member roles
- Instructional steps to building the engine stand,
- The bill of materials with the cost of materials
- A concluding paragraph

COMPUTER REQUIREMENTS

Click here to download the computer requirements /checklist for the team activity: [Computer Requirements](#).

Evaluation/Scoring of team activity

The team activity will be scored as follows:

- Teamwork process:100 points
- Team report50 points
- Finished product:250 points
- Total team activity400 points

TEAM ACTIVITY PRODUCT EVALUATION (250 POINTS)

Note: The FFA Team Scoring Rubric at the bottom of this page will be used to score the product of the team activity product. This is a tentative rubric and is subject to minor changes.

Scoring of safety procedures

Teams will be observed during the process of the activity.

- Points will be deducted from the team score if a judge observes violations of safety.
- The judge will deduct points and will inform the team member(s) of the infraction.
- If the safety infraction is repeated, a more severe deduction will be taken and the team member(s) will again be warned.
- If repeated safety infractions or infractions that threaten the health of team members occur, the team may be disqualified and will be informed that they need to stop working on the team activity.

Evaluation/Scoring of team activity process

Teams will be evaluated on their ability to work together (process) to complete the team activity task. Teams will be observed during the event and evaluated on the following:

- Communications – All team members effectively communicate with each other throughout the entire activity.
- Work distribution – Work was evenly distributed between all team members and all team members were employed at all times.
- Time management – All team members managed their time efficiently.
- Team organization – Team started right away, had no down time, was not rushed at the end of the task.

Suggested Resources:

- General references specified for the Agricultural Technology and Mechanical Systems CDE
- Agricultural Technical Systems and Mechanics, published by American Technical Publishers (ATP)
- Agricultural Mechanics: Fundamentals and Applications, published by Delmar-Cengage Learning
- Power Tool Safety and Operation. Hobar Publications.
- Basic Electricity Illustrated Edition by U.S. Naval Personnel
- National Electrical Code (latest edition). NFPA.

Competencies

- Interpret plans and working drawings.
- Select, assemble and check metal fabrication equipment and supplies.
- Cut metal with plasma cutting unit.
- Interpret lumber and manufactured wood product grade stamps.
- Measure and mark lumber to correct lengths.
- Operate power tools such as nibblers, drills and saws.
- Operate hand tools such as saws and files.
- Use power circular saw and/or hand saw to cut lumber.
- Fasten lumber using nails, screws and/or carriage bolts.
- Develop a bill of materials.
- Demonstrate strong interpersonal communication abilities.
- Demonstrate knowledge combined with leadership qualities and the ability to delegate responsibilities.
- Understand and apply principles of mathematics, economics, biology and physics.
- Have a high level of common sense, logic and critical thinking skills.
- Think independently and analytically.
- Ability to understand and follow detailed instruction —written and oral.
- Utilize current technologies —computers, electronics, mechanical systems, etc.
- Productively use time, money and people.

Agriculture, Food and Natural Resources Content Standards

- CRP.04.02. Performance Indicator: Produce clear, reasoned and coherent written communication in formal and informal settings.
- CRP.08.02. Performance Indicator: Investigate, prioritize and select solutions to solve problems in the workplace and community.
- CS.03.04. Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.
- CRP.04.01.01.b. Analyze use of verbal and non-verbal communication strategies in workplace situations.
- RP.04.02.02.b. Apply techniques for ensuring clarity, logic and coherence to edit written communications
- CRP.04.02.02.c. Compose clear and coherent written documents
- CRP.04.03.01.b. Apply active listening strategies (e.g., be attentive, observe non-verbal cues, ask clarifying questions, etc.).
- CRP.06.03.02.b. Elicit and assimilate input and feedback from individuals and organizations about new ideas or innovations for the workplace or community.
- CRP.08.01.01.b. Apply steps for critical thinking to a variety of workplace and community situations.
- CRP.08.02.01.b. Assimilate and prioritize potential solutions to solve problems in the workplace and community.

- CRP.08.03.01.b. Analyze and determine the best problem-solving model to apply to workplace and community problems.
- CRP.12.01.01.b. Formulate action plans to complete team-oriented projects in the workplace and community, including plans for personal contributions.
- CRP.12.01.02.b. Apply consensus building techniques to accomplish results in team-oriented situations.
- PST.01.02. Apply physical science and engineering principles to design, implement and improve safe and efficient mechanical systems in AFNR situations.
- PST.01.02.01.c. Apply the scientific method to devise strategies to improve the efficiency of operation of AFNR-related mechanical systems.
- PST.04.03. Follow architectural and mechanical plans to construct, maintain and/or repair AFNR structures (e.g., material selection, site preparation and/or layout, plumbing, concrete/masonry, etc.).
- PST.04.03.01.c. Select materials for a project based upon an analysis of the project and the quality of the materials
- PST.04.01.01.b. Apply scale measurement and dimension to develop sketches of agricultural structures.
- PST.04.03.01.b. Analyze and assess samples of materials or products for quality and efficiency of workmanship.
- PST.04.03.01.c. Select materials for a project based upon an analysis of the project and the quality of the materials.
- PST.04.03.03.b. Calculate costs associated with the repair and replacement of wood and/or metal components in an AFNR structure.
- PST.04.03.03.c. Construct AFNR structures using wood and/or metal materials.