

Students please affix one of the self adhesive labels from your sheet of identification labels to this page. Make sure the edges of the label are within the boundaries of this box and that the affixed label does not obscure any other parts of this page. If you do not have a self adhesive identification label complete the following information.

Your Name: _____

Write your name as it appears on your name badge.

Your Participant Code: _____

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Write your participant code as it appears on your name badge.

Students: Please do not write or mark within this box.

Skill Activity Score: _____

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Judge's Initials: _____

**2016 NATIONAL FFA AGRICULTURAL TECHNOLOGY AND MECHANICAL SYSTEMS
CAREER DEVELOPMENT EVENT
STRUCTURAL SYSTEMS**

Please read and follow directions carefully! Use your time wisely!

GENERAL INFORMATION / DIRECTIONS:

Assume you are repairing a piece of agricultural equipment. While making the repair you are required to weld plate to plate using FCAW-S. This exercise represents this requisite skill.

PROCEDURES:

1. Safety: Because you are working in a welding area safety glasses must be worn at all times. A serviceable welding helmet with a shade ten (minimum) protective lens as well as leather gloves and long sleeves must be worn while welding.
2. Follow the provided plans to assemble and weld the required piece utilizing the flux cored arc welding (FCAW-S) process. You will weld one butt joint, one lap joint, one inside corner fillet joint, and one outside corner fillet joint.
3. Properly mark your completed assembly and turn it in to a contest official with this sheet.

Activity Score Sheet

<u>Graded Item</u>	<u>Points</u>	<u>Score</u>
1. Correct assembly (3), safety (1) and clean-up (1)	5	_____
2. Appearance —consistency in form from beginning to end of the weld; smooth face dimension showing uniform travel speed; dense ripples; free of slag, porosity or spatter	5	_____
3. Beginning and ending —tack welds aligned and spaced for root gap; full penetration at beginning of joint; end crater well filled; surface free of arc strikes	5	_____
4. Edge of weld —good tie-in fusion, no undercutting or overlapping, weld metal tied to toe or weld root, free of undercut or overfill	5	_____
5. Placement of weld — The position of the weld bead in the joint; face alignment; width uniform; uniform heat distribution across joint	5	_____
6. Weld profile —uniform contour and thickness; an estimate of fusion to the base metals; uniform fusion without burn through; keyhole reaches into root of joint	5	_____
TOTAL POINTS: (Double check point total and enter at top.)	30	_____