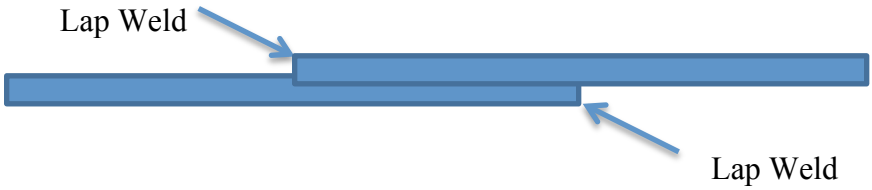
Name_____ School_____ Contestant Number _____

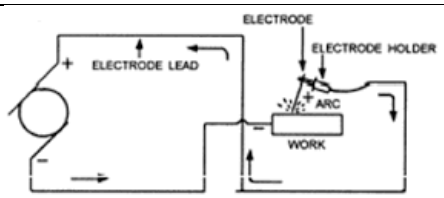
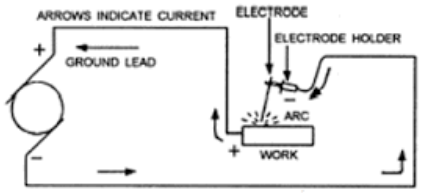
2014 Wyoming State FFA CDE
Agricultural Technology and Mechanical Systems
Structural Systems-Welding Skill

You are an owner of a large-scale wheat production operation in northern Wyoming. You are in the middle of planting season, moving to the next field, when your new John Deere MaxEmerge XP 1770NT planter breaks at a section in the drawbar hitch. After calling the on-site repair service for John Deere, you have been informed that it will be several days before they can work you into their schedule since this is the busiest time of the season. In order to get your seeds planted in time you need to repair the hitch as soon as possible. Using the two pieces of metal provided, follow the diagram below and lap weld the two pieces of metal together.

Using the E6013 1/8" diameter electrodes provided, complete the appropriate welds.



Match the Terms/Pictures with their correct answer. The answers may be used more than once. Be sure to include all correct possible answers for each question.

1. _c____			a.	AC Polarity
2. __b__			b.	DC Straight Polarity
3. __b__	Electrode Negative		c.	DC Reverse Polarity
4. __c__	Electrode Positive			
5. _b c__	Current flows in one direction			
6. __a__	Current flows in both directions			
7. __c__	Results in deeper penetration			
8. _b___	Results in faster deposition rate			

Criterion	Points possible	Points earned
Quality of lap weld 1	10	
Quality of lap weld 2	10	
Questions	8 (1 point each)	
Safety	2	

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