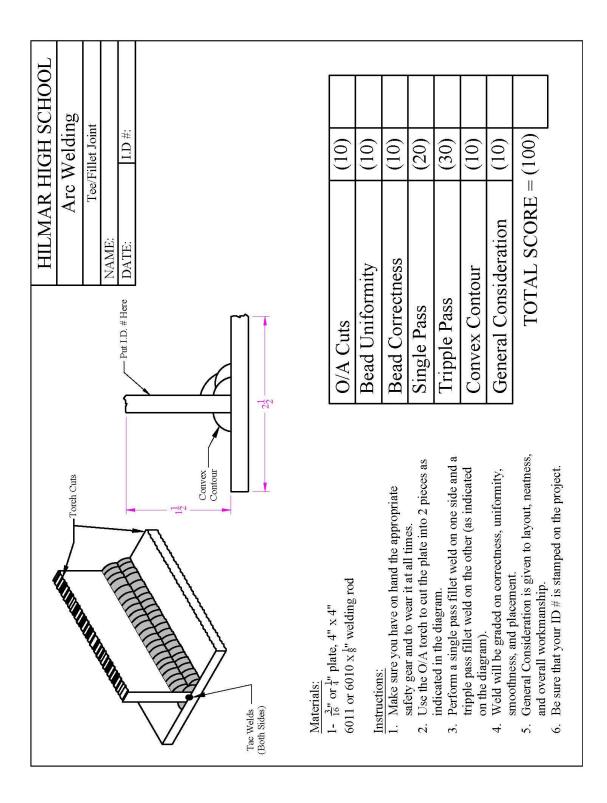
Arc Welding Assignment - Tee Joint

| | Name: Date: |
|---|--|
| Description: | |
| An arc welding assignment sheet with single and mu | ıltiple pass welds. |
| Materials: | Tools: |
| See assignment for materials and electrode. | SMAW Welder Hydraulic Shear Chipping Hammer Wire Brush Soapstone |
| Procedure: | |
| Review the attached plan and rubric. Follow the instructions on the plan. Dress in appropriate welding safety gear, lead Make sure to label with your project and turn | |
| Notes: | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Revised: 4/20/2022

Drawing:



Arc Welding Worksheet

| | | Name: |
|--------|---|-------|
| Comple | ete before you start: | |
| - | What materials will you be using? | |
| 2. | What position and electrode will you be using? | |
| 3. | How will you prepare the metal for welding? | |
| 4. | Why is it important to tack the project before welding? | |
| 5. | How will you ensure the vertical pieces are square? | |

Grading Rubric:

(See assignment sheet)

Arc Welding Teachers Notes:

This is designed to be a summative exercise to demonstrate welding ability.

Agricultural Standards Met:

- B7.0 Students understand oxy-fuel cutting and welding:
 - B7.1 Understand the role of heat and oxidation in the cutting process.
 - B7.2 Know how to properly set up, adjust, shut down, and maintain an oxy-fuel system.
 - B7.3 Know how to flame-cut metal with an oxy-fuel cutting torch
- B8.0 Students understand electric arc welding processes:
 - B8.1 Know how to select, properly adjust, safely employ, and maintain appropriate welding equipment (e.g., gas metal arc welding, shielded metal arc welding, gas tungsten arc welding).
 - B8.2 Apply gas metal arc welding, shielded metal arc welding, or flux core arc welding processes to fusion-weld mild steel with appropriate welding electrodes and related equipment.
 - B8.3 Weld a variety of joints in various positions.
 - B8.4 Know how to read welding symbols and plans, select electrodes, fit-up joints, and control heat and distortion.
- B1.0 Students understand personal and group safety:
 - B1.1 Practice the rules for personal and group safety while working in an agricultural mechanics environment.
 - B1.2 Know the relationship between accepted shop management procedures and a safe working environment.

Objectives:

By properly completing this project, students will be able to:

- Read a plan and layout dimensions
- Be proficient in arc welding
- Constructing a sound, neat and correct project

Alternative Tools/Methods/Materials:

- All steel could be cut with a Chop Saw or a torch used for more pieces.
- Oxy Cutting could be omitted (use 2" pieces).

Safety Review:

- Welding attire
- Oxy- Acetylene torch use
- Arc Welding
- Hydraulic Shear
- Chop Saw

Project Time:

| Demonstration: | 10 minutes |
|----------------|------------|
| Build: | 2 hours |

Demonstration Notes

- 1. Demonstrate the preparation for welding
- 2. Demonstrate tacking.
- 3. Demonstrate the weld.
- 4. Show a finished project.

Project from Hilmar High School (Dick Piersma)