**Welding**

(not a state fair project)

**(To enroll in the Welding project, select Collections and Hobbies: Welding in 4HOnline.)**

**Exhibit Requirements:**

-All poster exhibits must be displayed horizontally, sized 22" x 28" foam-core board or poster board mounted on a firm backing, and covered in clear plastic or other transparent material.

-All posters and display boards must include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member’s exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the manner in which references are listed.

**Beginner Grades 3-5:**

Exhibit a poster on the topics for the grade you just completed.

* Grade 3: Welding Safety Equipment
* Grade 4: Types of Welders
* Grade 5: Types of Welding Rods

**Intermediate Grades 6-8:**

Exhibit a poster on the topics for the grade you just completed.

* Grade 6: Uses of Welding or Why Weld?
* Grade 7: Careers associated with Welding
* Grade 8: Weld and Exhibit the following:
1. Begin with a piece of mild steel flatiron (5"x8"x1/2") onto which you will weld: a) a row of straight beads, b) a row of weave beads, c) a row of hard face weave beads.
2. Weld two (2) pieces of flatiron in a "T" joint to the original flatiron. Do the corner weld vertically. The vertical corner weld should be at least 4" long. Weld the two pieces to the original flatiron with either straight or weave beads.
3. Butt weld another piece of flatiron 3x5x1/4" to the original piece of flatiron.
4. Lap weld another piece of flatiron 3x5x1/4" to the original piece of flatiron.
5. Weld your initials and the year on the back of the original piece of flatiron.
6. Label and identify each weld.
7. Overall Appearance and Neatness

**\*See additional supplement for Intermediate and Advanced Welding for more project resources.**

**Advanced Grades 9-12:**

In the Beginner and Intermediate Divisions of 4-H Welding you learned:

1. Safety practices in Arc Welding.

2. The different kinds of welding rods and their characteristics.

3. The history of Arc Welding.

4. The different welding beads.

5. The different welding joints.

You should review the above information before beginning your project for Advanced Welding. Advanced Welding is for those members who have welded several times and who are ready to repair or make an article.

**REQUIREMENTS**

1. Weld a minimum of three times.

2. Repair at least 1 item which requires welding at your home or farm.

**EXHIBIT**

One item that you have made or repaired. If it is a repaired item, indicate clearly the repairs you made. If it is an item you made, indicate its use, how long it took to make, and whether it is your original design. No items should exceed 3' x 3' unless you contact the Extension Office prior to Fair and get permission to bring it.

(This is to enable us in planning building space needs and tables needed.)

The item may be useful, decorative or artistic. **REMEMBER**: Make or repair an item worthy of your time and efforts. Be proud of what you exhibit. The following criteria will be used for judging:

1. Quality of the welds used.
2. Appropriateness of the welds used.
3. Quality of the joints made (if any).
4. Appropriateness of joints selected (if any)
5. Usefulness of the item made.
6. Overall appearance and neatness.

**\*See additional supplement for Intermediate and Advanced Welding for more project resources.**

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