

ENGINEERING- WELDING DAY
Friday, July 26, 2019
Agricultural Engineering Building – OSU Campus
Dewey Mann, Assistant Superintendent

LOCATION- NOT AT THE FAIRGROUNDS, Please report to The Ohio State University Agricultural Engineering Building located at 590 Woody Hayes Dr. Columbus, OH 43210 Directions: Exit Rt. 315 at Lane Ave., go east to the first stop light (Fyffe Rd), turn right, then turn left just before reaching Woody Hayes Dr.

GENERAL GUIDELINES

1. Age of Participants:

- 4-H Age unless noted in specific class guidelines

2. Participation Guidelines:

- Counties may be represented by a **maximum of one** participant in each class.
- All welding on projects exhibited must be completed using Shielded Metal Arc Welding (SMAW), commonly referred to as stick welding.
- Winners of any class in 2018 are not eligible to participate in the same class in 2019.
- Any previous members of the National Engineering Team are not eligible to compete in the same class again.
- Awards will be presented about 4:45 pm.

3. Type of Evaluation: Skill-a-Thon

- Participants will have a personal interview evaluation with a judging team
- Judging team will evaluate participant on the following basis (also see same score sheet):

10% Completed Project Book	20% On-site Interview
20% Welding Project from Project Book	20% Welding Project Optional Design
20% On-site Weldment	10% Personal Safety

4. Participant **MUST bring**:

- Registration information provided to you by your County 4-H Educator.
- Completed project book showing involvement in and progress toward completion of their project goals.
- Participants will have an interview based on the knowledge and skills associated with their project.
- Participants are responsible for supplying and monitoring any equipment and/or supplies needed to aid in the completion of their project.
- Participants must bring and wear industrial quality eye protection, long sleeve shirts, long pants, and high-top leather foot protection (example: work boots but NO athletic foot wear). It is encouraged for each welding contest participant to bring and use their own welding PPE (personal protective equipment). However, Industrial quality eye protection, gauntlet leather welding gloves and auto-darkening welding helmets will be available, if needed. Contestants wearing shorts, short-sleeved shirts or any inappropriate clothing or footwear will not be permitted to weld. Industrial quality eye protection (clear or shaded) will be worn in the contest area where the weldment is being created and especially under the welding helmet during welding.

CLASSES

J-1 Welding- **For welding projects that would have to fit in an imaginary box 6 ft. x 6 ft. x 3 ft.**

Every participant shall bring and exhibit two welding projects: one will be from the recommended projects in the 4-H Project Book (Arcs and Sparks) and the other will be one of an optional design which is no larger than that which can be wheeled into or around the building on a hand dolly by the welding contest participant.

All welding contest participants will demonstrate their SMAW ability by making the following welds: a 3" double square groove weld and a 3" double fillet weld. Welding will be done using a

Shielded Metal Arc Welding Power Source and 1/8" diameter, AWS type E-6011 electrodes. The power sources, base metal and electrodes will be provided.

J-2 Welding (Bigger Weldment) - For welding projects that are bigger than 6 ft. x 6 ft. x 3 ft.

In this class, participants will follow and meet all requirements and criteria listed for J-1, except for size of the optional design project. **This class is for larger dimension projects. It is preferred that projects be no larger than 8 ft. x 8 ft. and 20 ft.** For a project exceeding any of these dimensions, we ask you to call the Assistant Superintendent at least a week in advance of the contest.

AWARDS AND SPONSORS

1. All participants will receive a participation award sponsored by the Ohio State Fair.
2. The top 20% of each class will receive "Outstanding of the Day" awards sponsored by the Ohio State Fair.
3. The top individual from classes J-1 and J-2 will receive a clock trophy; the 2018 sponsor was **The American Welding Society-Columbus Section and the Lincoln Electric Company.**
4. In each class, the best individual from each of five age divisions (8-10, 11-12, 13-14, 15-16, &17-18) will be recognized. Each will receive an AC Welder with the overall winner receiving an AC/DC welder from the Lincoln Electric Company

2018 CLASS WINNERS

J-1 Laurel Garbers, Fulton J-2 Duncan Martin, Coshocton

Participants in the National Youth Engineering Challenge are not eligible to participate again in the same project area.

4-H ENGINEERING WELDING DAY PARTICIPATION SCHEDULE

Please report to the registration desk 15 minutes before your county is scheduled.

- 9:00 a.m.: Clark, Delaware, Fairfield, Fayette, Franklin, Licking, Logan, Madison, Marion, Morrow, Muskingum, Pickaway, Union
- 10:00 a.m.: Allen, Ashland, Champaign, Coshocton, Crawford, Greene, Hardin, Hocking, Holmes, Knox, Miami, Montgomery, Perry, Richland, Ross, Shelby, Vinton, Wyandot
- 11:00 a.m.: Athens, Clinton, Guernsey, Hancock, Highland, Huron, Jackson, Medina, Morgan, Pike, Seneca, Stark, Summit, Tuscarawas, Warren, Wayne, Wood
- 1:00 p.m.: Auglaize, Belmont, Butler, Carroll, Clermont, Darke, Erie, Hamilton, Harrison, Lorain, Monroe, Noble, Paulding, Portage, Preble, Putnam, Sandusky, Van Wert, Washington
- 2:00 p.m.: Adams, Ashtabula, Brown, Columbiana, Cuyahoga, Defiance, Fulton, Henry, Gallia, Geauga, Jefferson, Lake, Lawrence, Lucas, Mahoning, Meigs, Mercer, Ottawa, Scioto, Trumbull, Williams