



Scouts Move from the Campground to the Welding Lab

Groups of Boy Scouts in Missouri and Massachusetts were among the first to earn the new Welding merit badge



The Boy Scouts of America's Welding merit badge.

In early March, 24 Boy Scouts earned the new merit badge for welding at the Business & Technology Center of Metropolitan Community College (MCC-BT), Kansas City, Mo. It is believed these scouts from Kansas City's urban core became the first in the country to earn the new badge — Figs. 1–5.

The Scouts, who are between the ages of 14 and 17, earned their badges under the supervision of the MCC-BT faculty, American Welding Society members, and Scout leaders. The Scouts are members of the Heart of America Council, which serves 19 counties in and around the Kansas City metropolitan area.

In April, nine Scouts from the Mohegan Council, Worcester, Mass., and two from the Nashua Valley Council, Leominster, Mass., also earned the badge. The group included Venturing crew member Christina Fallavollita, making her most likely the first young woman nationwide to receive the badge — Fig. 6. Venturing is a Boy Scouts of America (BSA) program open to both young men and women from ages 13 to 21.

The Welding merit badge is part of the BSA's new science, technology, engineering, and math (S.T.E.M.) curriculum, which is designed to help Scouts develop critical skills that are relevant and necessary in today's competitive world. It is the latest in a new group of career-oriented merit badges the BSA is offering. The requirements the Scouts must meet to receive the badge can be found on page 123.

When the new badge was announced, Janice Downey, BSA senior innovation manager, said, "Welding is such an important part of our nation's growth and stability. The Welding merit badge is a good fit with preparing Scouts for their future and offers them a fun way to explore skills that can grow into a hobby or career. Their new skill may even be helpful for making or repairing items for their troop."

The Welding merit badge is one of about 130 options Scouts can choose from. Scouts earn merit badges in order to advance through the organization's ranks, with 21 needed to achieve the rank of Eagle Scout.◆



THE AMERICAN WELDER



Fig. 1 — The 24 Missouri Scouts who became the first in the country to earn the Welding merit badge.

Fig. 2 — AWS Vice President Dave Landon provided instruction to the Missouri Scouts on some of the basic welding processes, safety requirements, and careers in welding.

Fig. 3 — The Scouts received a lesson in welding safety from MCC-BT Welding Coordinator Tim Gill.

Fig. 4 — AWS District 16 Director Dennis Wright watches one of the Scouts practice his gas metal arc welding skills.

Fig. 5 — The Scouts were required to weld their initials. Here Tyler Lagermann shows off his plate.



Fig. 6 — Eleven Massachusetts Scouts earned the Welding merit badge in April. Front row from left: Justin Mahan, Patrick McKeon, Christina Fallavollita, David Dorman. Back row: Matt Barakian, Ed Eubank, Chris Gannon, Andy Meindersma, Nolan Guathier, Ed Salate, Joel Sylvester. Not pictured: Ben Pierce.

Acknowledgments — Figures 1–5 were provided courtesy of Alex Grigsby, campus communications coordinator, MCC-BT. Figure 6 is courtesy of Lisa Fallavollita.





How to Earn the Boy Scouts Welding Merit Badge

The requirements for the Boy Scouts Welding Merit Badge can be found on the organization's Web site at www.scouting.org. They are quoted below.

1. Do the following:

- a. Explain to your counselor the hazards you are most likely to encounter while welding, and what you should do to anticipate, help prevent, mitigate, or lessen these hazards.
- b. Show that you know first aid for, and the prevention of, injuries or illnesses that could occur while welding, including electrical shock, eye injuries, burns, fume inhalation, dizziness, skin irritation, and exposure to hazardous chemicals, including filler metals and welding gases.

2. Do the following:

- a. With your counselor, discuss general safety precautions and Material Safety Data Sheets (MSDS) related to welding. Explain the importance of the MSDS.
- b. Describe the appropriate safety gear and clothing that must be worn when welding. Then, present yourself properly dressed for welding — in protective equipment, clothing, and footwear.
- c. Explain and demonstrate the proper care and storage of welding equipment, tools, and protective clothing and footwear.

3. Explain the terms welding, electrode, slag, and oxidation. Describe the welding process, how heat is generated, what kind of filler metal is added (if any), and what protects the molten metal from the atmosphere.

4. Name the different mechanical and thermal cutting methods. Choose one method and describe how to use the process. Discuss one advantage and one limitation of this process.

5. Do the following:

- a. Select two welding processes, and make a list of the different components of the equipment required for each process. Discuss one advantage and one limitation for each process.
- b. Choose one welding process. Set up the process you have chosen, including gas regulators, work clamps, cables, filler materials, and equipment settings. Have your counselor inspect and approve the area for the welding process you have chosen.

6. After successfully completing requirements 1 through 5, use the equipment you prepared for the welding process in 5b to do the following:

- a. Using a metal scribe or soapstone, sketch your initial onto a metal plate, and weld a bead on the plate following the pattern of your initial.
- b. Cover a small plate (approximately 3 in. × 3 in. × 1/4 in.) with weld beads side by side.
- c. Tack two plates together in a square groove butt joint.
- d. Weld the two plates together from 6c on both sides.
- e. Tack two plates together in a T joint, have your counselor inspect it, then weld a T joint with fillet weld on both sides.
- f. Tack two plates together in a lap joint, have your counselor inspect it, then weld a lap joint with fillet weld on both sides.

7. Do the following:

- a. Find out about three career opportunities in the welding industry. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why the profession might interest you.
- b. Discuss the role of the American Welding Society in the welding profession.