



# METALWORKING

## BOY SCOUT MERIT BADGE



### ABOUT THE CLASS

The Metalwork merit badge is a great and fun way for Boy Scouts to learn the art of metalworking. Boy Scouts will learn about different metals and how to work them. Each session is taught by our experienced blacksmith, Daniel Dean.

All equipment is provided, including safety glasses and ear plugs. Children are supervised by the Blacksmith; however, parents are welcome and encouraged to spectate. The merit badge program is broken up into 4 2-hour sessions. Additional sessions may be required depending on individual progress.

### CONTACT

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### TERMS TO KNOW:

- ✓ Native Metal
- ✓ Malleable
- ✓ Metallurgy
- ✓ Alloy
- ✓ Nonferrous
- ✓ Ferrous
  
- ✓ BE SURE TO READ THE SAFETY RULES FOR METAL WORK, AND BE READY TO DISCUSS IN SESSION 1.

### SESSION 1

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- ✓ Discuss safety rules of metalworking.
- ✓ Define certain metal working terms.
- ✓ Discuss different types of metal.
- ✓ Describe how to work certain types of metal.
- ✓ Discuss blacksmith's basic tools.
- ✓ Make a sketch of two objects to hot forge, including dimensions.

### SESSION 2

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- ✓ Harden a piece of sheet copper.
- ✓ Soften a piece of sheet copper.
- ✓ Make a temper color index from a piece of steel.
- ✓ Create a center punch.

### SESSION 3

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- ✓ Work with low-carbon steel
- ✓ Forge a taper with the metal.
- ✓ Forge a U-shape bend with the metal.
- ✓ Form a decorative twist in square steel.
- ✓ Create an L-shape bend in the metal.

### SESSION 4

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- ✓ Create the two objects that were sketched in session 1.
- ✓ Include a decorative twist.
- ✓ Include a hammer-riveted joint in one object.
- ✓ Preserve your work from oxidation.