# Metal Work

Worksheet by the Merit Badge Center, Philippines

**Last Updated: March 22, 2021**

This worksheet was created to assist Scouts with their merit badge work. The worksheet does not replace the actual merit badge counseling process. A certified merit badge counselor for the badge must still certify your completion of each requirement and the merit badge. If a requirement says that you must take an action using words such as “discuss”, “show”, “tell”, “explain”, “demonstrate”, “identify”, etc. that is what you must do. **Merit badge counselors may not require the use of this worksheet or any similar material**. No one may add, subtract, or modify the official requirements for the merit badge as prescribed by the Boy Scouts of the Philippines.

Scout’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Unit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Requirement 1. Show the divisions of a foot, a meter, and a centimeter.

Have your Merit Badge Counselor certify you have shown these division of measurements.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Merit Badge Counselor’s Signature Date

## Requirement 2. Show how to make common joints and seams in a sheet metal, such as lap.

Have your Merit Badge Counselor certify you have shown how to make common joints and seams.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Merit Badge Counselor’s Signature Dated

## Requirement 3. Use tin cans to make two useful things that need cutting, bending, and edging.

List the two useful things you made.

|  |
| --- |
| 1. |
| 2. |

Have your Merit Badge Counselor certify you have made these two items listed.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Merit Badge Counselor’s Signature Dated

## Requirement 4. Show how to use the following tools: soldering copper, iron file, ball peen hammer, tinner’s snips, pliers, hacksaw, blow torch, and hand drill.

Have your Merit Badge Counselor certify you have show how to use the following tools.

|  |  |
| --- | --- |
| **Tools** | **Merit Badge Counselor Signature** |
| **Soldering Cooper** |  |
| **Iron File** |  |
| **Ball Peen Hammer** |  |
| **Tinner’s Snips** |  |
| **Pliers** |  |
| **Hacksaw** |  |
| **Blow Torch** |  |
| **Hand Drill** |  |

## Requirement 5. Do the following:

## Draw working sketches of a cake pan and a funnel.

Working sketches of a cake pan.

|  |
| --- |
|  |

Working sketches of a funnel.

|  |
| --- |
|  |

## Make patterns based on the working sketches you made.

|  |
| --- |
|  |

## Requirement 6. Make any of the following articles by sawing, filing, riveting, and/or drilling: wire hangers, frames of a lamp shade, hinges, candle stand, caliper, paper weight, bird cage, wire waste basket, dish rack, wire wall planter, soap dish, wire decors, garden towel, spoon, tray, soup ladle, etc.

|  |  |
| --- | --- |
| **What did you make?** | **What actions did you use? (sawing, filing, riveting, and/or drilling)** |
|  |  |
|  |  |

Have your Merit Badge Counselor certify you have made these articles.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Merit Badge Counselor’s Signature Dated