

# TECH:Ornamental Metal (Manu)

## Summary

The student will how to safely use the tools,lay out and build a decorative metal project. They will also learn about careers relating to skills and tools in this area.

## Time Frame

2 class periods of 60 minutes each

## Group Size

Large Groups

## Life Skills

Thinking & Reasoning, Employability

## Materials

### Materials:

1. 1 - 3/8" X 1/16" X 18" metal strip (flat iron)
2. 1 – prestamped W3 candleholder
3. 1 – prestamped T3 candle tray
4. 1 - set 1/8" or 5/40 X 1/2" nut and bolt
5. 1 - 1/8" X 3/8" soft rivet

### Tools:

1. 1 - MK2 Combination Punch/Shear Tool
2. 1 - MK2 /2 Scroll Former
3. 1 – File
4. 1 – Anvil
5. 1 - Ball Pean Hammer
6. 1 - 1/8" nut driver
7. #2 slotted screwdriver

## Background for Teachers

### Resource:

Wrought Iron Handicrafts

1620 38th Street N.W.

Rochester, Minnesota, 559001

Phone: 800 - 456-7738

FAX: 507 - 289-0836

## Intended Learning Outcomes

- 1- The student will create a small candle holder, utilizing some of the same tools, materials, and skills used by professional ironworkers.
- 2- The student will list the careers and leisure activities that use these tools and materials.

## Instructional Procedures

- 1- The student will read the instruction manual and take a pretest concerning safety, career information, and project procedures.

2- The student will build a small candleholder using the procedures listed in the instruction manual and the appropriate tools:

**STEPS:**

- 1- Cut flat iron strips with a shear
- 2- Use a punch to make holes in flat iron strips
- 3- Use a scroll former to shape the flat iron strips
- 4- Use an anvil and a ball peen hammer to attach two pieces of iron strips with a soft rivet.
- 5- Use a screwdriver and a nut driver to assemble the finished parts with a bolt and a hex nut.

Extensions

- 1- Discuss with the students careers or professions that use the skills, tools, and procedures used to make the small candleholder.
- 2- Have students list items utilizing ornamental metal parts that can be purchased for household use.
3. Have students list leisure time activities that use tools and skills demonstrated in this unit.

Authors

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