

## **BLACKSMITHING – WELDING AND METAL ARTS**

Blacksmithing is open to those in grades six (6) and above, due to the safety issues of working with hot metal. 4-H'ers will learn basic blacksmithing skills the first year and build on those skills the subsequent years in the project.

**Superintendent: John Vanada and John Bennett**

**State Fair Entries: TBD**

### **Terms and Conditions:**

1. The judging of the Blacksmithing projects will be done during Exhibit Hall judging.
2. Each 4-H'er must have safety glasses and earplugs. NO OPEN TOED SHOES. Long sleeve cotton shirts and pants must be worn. No polyester.
3. There will be a fee to participate in this project to help cover the cost of supplies.
4. Blacksmithing divisions are not based on grade level.
5. Every member must complete divisions in order before advancing to the next division. Members are allowed to "test out" of earlier divisions by demonstrating proficiency to the Blacksmithing Leader.
6. In addition to the division project, each member will include a project general record sheet. The record sheet will contain information about the process, costs, related tools and knowledge used to complete your project. This must be turned in with your Green Record Book.
7. All 4-H Blacksmithing members should make all efforts to practice their hammering skills prior to attending workshops. It is recommended that you use a hammer, an 8 penny nail and 2x4 piece of wood to practice. Accurate hammering skills are needed to complete your project.

All posters, notebooks, and display boards must include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of a notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the manner in which references are listed.

### **Division definition:**

Each division project must demonstrate listed skills.

#### **Division I: Basic skills**

Skills: Drawing a point, Twist, 90 degree bend, Scrolls

Project: Make an "S" hook 6" long with a 1 ½ twist or a lid lifter with a twist or spiral candleholder with a twist.

Make a 12"x12" solid backed wood display board demonstrating basic skills. Cut off each piece and attach to board. Attach project to board. Label each piece.

#### **Division II: Basic skills continued**

Skills: Riveting, Slitting, Drifting, Punching and upsetting.

Project: 4-H'er will make a wall mount key rack with split scrolls and rivets. Students will forge a punch to make the holes for the rivets.

#### **Division III: Intermediate**

Skills: Tool-making

Project: 4-H'er will make a trivet with leaves and collars. Students will make a jig to make the trivet.

#### **Division IV: Intermediate continued**

Project: 4-H'er will make a project of the leaders design.

#### **Division V: Advanced**

Project: 4-H'er will make a slot punch and forge a hammer.

**Division VI: Advanced**

Project: Using your creativity, design and make a project to be exhibited. The project should showcase your creativity and skills. Designs must be approved by Blacksmithing Leaders two (2) weeks prior to the first forge workshop. The design must include a working sketch and a materials list.

**Artistic**

This category has no division boundaries. However, you must have a division entry to be able to exhibit in this category.

Project: Use your creativity to make anything you want to be judged