

## WOODWORKING

The name and county of each Science, Engineering and Technology exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks. One exhibit per class unless otherwise noted. Several classes require a display board which should be a height of 24" and not exceed 1/4" in thickness. A height of 23 7/8" is acceptable to allow for the saw kerf (width) if two 24" boards are cut from one end of a 4'x8' sheet of plywood. Nothing should be mounted within 3/4" of the top or bottom of the board. Fabricated board such as plywood, composition board, or particle-type lumber may be used for display boards. Display boards should be sanded and finished to improve their appearance. The finish on a display board will be judged as a woodworking exhibit. Display boards should include an overall title for the display, plus other necessary labeling. All reports should be computer generated, enclosed in a clear, plastic cover, and attached securely to the display. Reports should be written using the scientific method whenever possible (background, the question or hypothesis, what you plan to do and what you did, method used and observations, results, what you learned).

### Division 911: Woodworking

The ability to build objects as designed by another person is an important life skill. Professional woodworkers often are hired to build objects to exacting specifications as laid out in a written plan. All articles exhibited must include a plan (with drawings or sketch or blueprint) stating dimensions and other critical instructions a builder would need to know to build the project. Plans may include narrative instructions in addition to the dimension drawings and include any alterations to the original plan. Part of the score depends on how well the project matches the plans. If the plans are modified, the changes from the original need to be noted on the plans. All plans used for making the article must be securely attached and protected by a clear plastic cover.

#### Unit 1: Measuring Up

**\*H911007 - Single Woodworking Article** as show in Unit 1 manual or comparable. Enter up to two.

#### Unit 2: Making the Cut

**\*H911008- Item** made using skills learned in Unit 2.

#### Unit 3: Nailing it Together

**H911001 - Woodworking Article** - Item made using skills learned in the Nailing it Together manual. Examples include: bookcase, coffee table or end table.

**H911002 - Woodworking Display** exemplifying one of the principles learned in the Nailing it Together Project. Examples include: measuring angles, wood lamination and joint types.

**\*class exhibited at county fair only – not eligible for state fair**

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**Sherman County** • Box 459 • Loup City NE 68853-0459 • 308-745-1518 • [Sherman-County@unl.edu](mailto:Sherman-County@unl.edu)  
**Valley County** • 801 S Suite 1 • Ord NE 68862-1857 • 308-728-5071 • [Valley-County@unl.edu](mailto:Valley-County@unl.edu)

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**H911003 - Recycled Woodworking Article** made from recycled, reclaimed or composite wood.

Article must be sanded and sealed and utilize on or more woodworking techniques from page 2 of the Unit 3 manual. Exhibit must include the woodworking plan and a minimum one page report of how the engineering design process was used to develop the woodworking plan. Engineering Design Process: 1. state the problem (Why do you need the item?) 2. generate possible solutions (How have others solved the problem: What other alternatives or designs were considered?) 3. select a solution (How does your solution compare on the basis of cost, availability and functionality?) 4. build the item (What was your woodworking plan and what processes did you use to build your item?) 5. evaluate (How does your item solve the original need?) 6. present results (How would you do this better next time?)

#### Unit 4: Finishing it Up

**H911004 - Woodworking Article** made using skills learned in the Finishing it Up Project. Examples include: dovetailing, making a pen using lathe, overlays, using a router, etc.

**H911005 - Woodworking Display** exemplifying one of the principles learned in the Finishing it Up Project. Examples include: career opportunities, types of finishes, or dovetailing.

**H911006 – Recycled Woodworking Article** made from recycled, reclaimed or composite wood.

Article must be sanded and sealed and utilize on or more woodworking techniques from page 2 of the Unit 4 manual. Exhibit must include the woodworking plan and a minimum one page report of how the engineering design process was used to develop the woodworking plan. Engineering Design Process: 1. state the problem (Why do you need the item?) 2. generate possible solutions (How have others solved the problem: What other alternatives or designs were considered?) 3. select a solution (How does your solution compare on the basis of cost, availability and functionality?) 4. build the item (What was your woodworking plan and what processes did you use to build your item?) 5. evaluate (How does your item solve the original need?) 6. present results (How would you do this better next time?)

**H911010 - Careers Interview** – Interview someone who is working in the field of woodworking and research that career. Interviews can either be written or in a multimedia format (CD/DVD). Written interviews should be in a notebook. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1” margins. Multimedia reports should be between 3 to 5 minutes in length.

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