

DEPARTMENT STEM WOODWORKING

In this category 4-H'ers have the opportunity to create exhibits about varying levels of woodworking. In addition, participants can also create informational exhibits about their woodworking projects. Through involvement in STEM Woodworking, 4-H'ers will be better educated about the topic and better their woodworking skills.

GENERAL INFORMATION

- A. 4-H entries must be made according to the printed 2024 Custer County Fair Premium Book and entered online by 5:00 p.m. on June 28. Instructions for online entries will be emailed to 4-H families on approximately May 15. Exhibits will be interviewed judged on Wednesday, July 24, 10:00 a.m. - 4:00 p.m. at the 4-H Exhibit Hall.
- B. The name and county of each exhibitor should appear separately on the back of each board, poster, or article and on the front cover of the notebooks so owner of exhibit may be identified if the entry tag is separated from the exhibit.
- C. Each individual is limited to one exhibit per class.
- D. Requirements: All articles exhibited must include a plan (with drawings or sketch or blueprints) stating dimensions and other critical instructions a builder would need to know how to build the project, and 4-H'ers name and county. 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.
- E. 4-H'ers must be in Unit 3 or Unit 4 for the exhibit to be considered for State Fair. All projects must have appropriate finish.
- F. If the project (i.e. picnic tables, wishing wells, swings, chairs, bridges, doghouses, etc.) is designed to be used outside, it may be displayed outside. All exhibits that may be displayed outside MUST have entry tag and supporting information placed in a protective bag to prevent damage from weather events such as rain and be ATTACHED to projects with string, zip ties, etc.
- G. Entries must be labeled with exhibitor's name, county, and years in the woodworking project.

Ribbons	P.	B.	R.	W.
	\$2.50	\$2.00	\$1.50	\$1.00

MEASURING UP - UNIT 1 Entries not eligible for State Fair.

CLASS H909001 First Woodworking Article - Item made using skills learned in the Measuring Up Project Guide. Examples include: recipe holder, stilt, or other skill level appropriate item. Items should be entered with construction plans.

CLASS H909002 Second Woodworking Article - Item made using skills learned in the Measuring Up Project Guide. Examples include: recipe holder, stilt, or other skill level appropriate item. Items should be entered with construction plans.

CLASS H909003 Third Woodworking Article - Item made using skills learned in the Measuring Up Project Guide. Examples include: recipe holder, stilt, or other skill level appropriate item. Items should be entered with construction plans.

MAKING THE CUT - UNIT 2 Entries not eligible for State Fair.

CLASS H910001 Woodworking Article - Item made using skills learned in the Making the Cut project guide. Examples include: birdhouse, foot stool, napkin or letter holder. Items should be entered with construction plans.

NAILING IT TOGETHER - UNIT 3

All projects must have appropriate finish. If the project (i.e. picnic tables, wishing wells, swings, chairs, bridges, doghouses, etc.) is designed to be used outside, it may be displayed outside. All exhibits that may be displayed outside MUST have entry tag and supporting information placed in a protective bag to prevent damage from weather events such as rain and be ATTACHED to projects with string, zip ties, etc.

CLASS H911001 Woodworking Article - Item should be made using either joints, hinges, dowels, or a dado joining made using skills learned in the Nailing It Together manual. Item is required to be appropriately finished. Examples include: bookcase, coffee table or end table.

CLASS H911003 Recycled Woodworking Display - Article made from recycled, reclaimed, or composite wood. Article must be appropriately finished and/or sealed and utilize one 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 did you need this 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. Reason for article finish (What type of finish, how did you finish, or why you choose this finish?)
6. Evaluate (How does your item solve the original need?)
7. Present results (How would you do this better next time?)

CLASS H911004 Composite Wood Project - 60% of the project must be wood and 40% made from other materials such as metal, rubber, resin, etc. All plans and plan alterations must be attached to the article. Protect plans with a cover. If project is designed to be outside it is required to have appropriate outdoor finish because project may be displayed outside.

CLASS H911005 Outdoor Wood Project made with Treated Wood - Treated wood projects DO NOT have to have a finished coating. All plans and plan alterations must be attached to the article. Protect plans with a cover, if project is designed to be outside. Examples include: picnic tables, planters, outdoor furniture, etc.

CLASS H911006 Wood Projects Created on a Turning Lathe - Article is the object created from spinning wood on a turning lathe. Article must be appropriately finished and/or sealed. Exhibit must include plans detailing design and process of completion, any changes made to the design, details of finishing techniques, and other relevant information about the article. Must include a description of tools used.

FINISHING UP - UNIT 4

All projects must have appropriate finish. If the project (i.e. picnic tables, wishing wells, swings, chairs, bridges, doghouses, etc.) is designed to be used outside, it may be displayed outside. All exhibits that may be displayed outside MUST have entry tag and supporting information placed in a protective bag to prevent damage from weather events such as rain and be ATTACHED to projects with string, zip ties, etc.

CLASS H911007 Woodworking Article - Item made using skills learned in the Finishing It Up Project. Examples include: dovetailing, making a pen using lathe, overlays, using a router, etc. Item is required to be appropriately finished.

CLASS H911008 Recycled Woodworking Display - Article made from recycled, reclaimed, or composite wood. Article must be appropriately finished and/or sealed and utilize one 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 design and engineering process was used to develop the woodworking plan.

Engineering Design Process

1. State the problem (Why did you need this 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. Reason for article finish (What type of finish, how did you finish, or why you choose this finish?)
5. Build the item (What was your woodworking plan, and what processes did you use to build your item?)
6. Evaluate (How does your item solve the original need?)
7. Present results (How would you do this better next time?)