



2025-2026 Delaware 4-H Wood Science Skill-A-Thon Contest

In this contest, 4-Hers will learn a variety of wood science topics including equipment, safe practices, skills, and workmanship. In addition, decision making skills and the ability to clearly express oneself are lifelong attributes that have a positive impact on mastery. 4-H Skill-A-Thon contests help members develop these skills. Judging is making a decision and then telling why you made it. Through Skill-A-Thons, youth learn to appreciate standards, observe carefully, and develop reasoning ability.

There are two divisions for this contest: Junior and Senior.

Junior participants must be between the ages of 8-12 in 4-H age. Individuals 13 and older must complete the Senior contest. If a Junior chooses to participate in both divisions, they must complete the Senior level contest first. The top ten Senior participants from each county are eligible to participate in the state contest. Should ten Seniors not be available, Juniors may be asked to participate in the state event.

Resources:

- Woodworking Wonders 4-H Project Books/ Levels 1-4 available in County Offices
- https://www.oswego.edu/art/sites/www.oswego.edu.art/files/woodshop_hs.pdf
- Tips on Reasons: <http://www.udel.edu/0012723>
- [Wood Science Training Kit](#)

Junior Skill-A-Thon Contest

1. Be able to Identify the 13 tools listed in (Level 1, pg. 8).
 - a. *Claw Hammer, Pliers, Sandpaper Block, Carpenter's Pencil, Try Square, Handsaw, Flat-Bladed Screwdriver, Wood Rasp, Tape Measure, C-Clamp, Phillips Screwdriver, Brace and Bit, Nail Set*

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2. Be able to identify three safety practices choosing from the listing of 13 tools. (Level 1, pg. 10-11)
3. Be able to identify the parts of a hammer (Level 1, pg. 17) and the parts of a hand saw (Level 1, pg. 21)
4. Learn each of the following skills and be prepared to demonstrate one at the contest:
 - a. Countersink a nail (Level 1, pg. 18)
 - b. Measure a piece of wood using the provided measuring tool (Level 1, pg. 14 and 16)
 - c. Pull a nail from a piece of wood (Level 1, pg.18)
5. Rank a class of 4 finished or unfinished items considering workmanship, appearance, suitability, and quality of the finish.

Senior Skill-A-Thon Contest

1. Be able to identify all tools found in Levels 1-4 and be able to provide a safety practice for each one. These tools include those from the Junior Contest as well as the following additional tools:
 - a. *Rip Saw, Chisel, Square, Table Saw, Miter Box, Protractor, Combination Square, T-Bevel, Router, Plane, Circular Power Saw, Hand Screw, Plane.*
2. After reading scenarios provided, be able to respond to questions presented as to what you feel would be the best safety practice to follow when working with table saws and cutting wood. (Note: Refer to Oswego link in resource area)
3. Be familiar with the following woodworking vocabulary words for each respective contest year from the glossary in Levels 1-4:

<u>2025 Contest:</u>	<u>2026 Contest:</u>
Glossaries Level 1 & 2	Glossaries Level 3 & 4
4. Be able to provide a brief description of the proper use and function for the following tools:

<u>2025 Contest:</u>	Combination Square
Chisel	Miter Box
	T-Bevel

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2026 Contest:
Table Saw
Router

Portable Electric Drill
Brace and Bit

5. Learn each of the following skills and be prepared to demonstrate two at the contest:
 - a. Demonstrate how to make a dado joint (Level 3, pg. 16)
 - b. Demonstrate the use of a rasp and clamp to smooth the edge of a piece of wood (Level 1, Pg. 21)
 - c. Demonstrate how to use a T-bevel and protractor to draw 45, 70 and 15-degree angles on a piece of wood (Level 3, Pg. 21)
 - d. Demonstrate how to use a miter box (Level 2, Pg. 22)
 - e. Demonstrate how to use a chisel (Level 4, Pg. 20)
 - f. Demonstrate how to use a plane (Level 3, Pg. 25)
6. Rank one class of 4 finished or unfinished items considering workmanship, appearance, suitability, and quality of finish. Seniors are to provide written reasons for your placings.

If you need special accommodations to participate in this contest, please notify your county 4-H office, two weeks in advance of the event.

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