



Science, Engineering and Technology

# 4-H Woodworking

North Dakota 4-H Project Sheet

**Woodworking is a valuable skill for a hobby, household repairs or even a career. Learn about types of wood, uses for various kinds of wood, how to make connections and joints, safety tips, common tools and project ideas from the very simple to impressive.**



- Develop an understanding for fiber products of the forest.
- Develop skills in the selection and uses of various types of wood and wood products.
- Develop skills in the selection, care, and safe use of woodworking tools and machines.
- Learn about environmental protection and the wise use of natural resources.

## Here's what you can do all year!

Starting Out Basic/Level 1	Learning More Intermediate/Level 2	Expanding Horizons Advanced/Levels 3 & 4
<ul style="list-style-type: none"> <li>• Identify tools and needs for your work area.</li> <li>• Learn safety rules, tool safety settings and how to use safety gear.</li> <li>• Identify what different woods look and feel like.</li> <li>• Understand how to use a variety of hand tools.</li> <li>• Learn how to connect wood using glue and nails.</li> <li>• Finish wood projects by sanding and painting.</li> </ul>	<ul style="list-style-type: none"> <li>• Learn how to use the right hand tools.</li> <li>• Determine which woods are good for a product.</li> <li>• Learn to measure and cut angles.</li> <li>• Learn the importance of proper sanding and finish application.</li> </ul>	<ul style="list-style-type: none"> <li>• Discover joining, clamping and connecting techniques.</li> <li>• Use stain to emphasize the grain of wood.</li> <li>• Understand the differences in wood, laminates and veneers.</li> <li>• Learn the correct and safe use of power tools.</li> <li>• Explore woodworking careers and entrepreneurial opportunities.</li> </ul>

### Pass it on!

**Now that you know how, share it with others. Here are ideas to get you started.**

#### Communication

- Conduct a wood-finishing seminar.
- Prepare an exhibit that explains types of wood and the best applications for each.
- Give a safety demonstration for safe woodworking tool usage.

#### Citizenship

- Build a bird feeder for a neighbor.
- Make a bench and donate it to charity.
- Join a Habitat for Humanity building project.

#### Leadership

- Conduct a basic building workshop for a younger club.
- Organize your club to help older community members with winterizing their home.
- Be a project helper for younger members in woodworking.

#### Entrepreneurship

- Sell your woodworking projects at a craft fair.

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Learn more at [www.ndsu.edu/4h/](http://www.ndsu.edu/4h/) or contact your county NDSU Extension office.



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### Opportunities to explore woodworking:

- Contact your local county Extension office for local woodworking workshops, activities or events.
- Visit a cabinet-making business to see how it applies what you are learning about woodworking.
- Use online resources to learn advanced techniques.
- Explore local woodworking groups and find ways to connect with them to learn more.
- Visit your local community college to learn about woodworking careers and degrees.
- Go to woodworking shows to learn about tools, techniques and products.
- Is it county fair time? Consider taking an exhibit or a piece of your project learning to the fair for judging and to show off what you've learned throughout the year. It might get selected to go to the North Dakota State Fair.
- Interested in a college education in the area of woodworking, architecture, industrial technology or engineering? Schedule a visit with North Dakota State University, [www.ndsu.edu](http://www.ndsu.edu).

### Exhibit Ideas

- Make and finish a piece of furniture.
- Build a tack box for your show animal project.
- Make a toy train set out of wood.
- Build a birdhouse or feeder.
- Build a doghouse.
- Make a design for something you would like to build: table, cabinet or even a small building.
- Create a poster on safety precautions when working with wood and tools.
- Develop an exhibit on woodworking tools and how they are used.
- Make an exhibit on various wood fasteners, where they would be used and why.
- Create an exhibit on various woodworking techniques.
- Make an exhibit evaluating the merits of different joinery.
- Develop an exhibit on furniture repair.
- Make an exhibit on "green" woodworking and sustainable wood types.
- Create an exhibit comparing wood to synthetic replacements.

### 4-H Resources

- [National 4-H Curriculum:](#)
  - [Measuring Up](#) (HCH101)
  - [Making The Cut](#) (HCH102)
  - [Nailing It Together](#) (HCH103)
  - [Finishing Up](#) (HCH104)
  - [Helper's Guide](#) (HCH265)

### Other Resources

- [DIY Network Woodworking projects](#)
- [Hardwood Information](#)
- [Online Woodworking Resources](#)
- [Woodworker's Central](#)
- [Fine Woodworking](#)
- [Woodworking Industry Information](#)

### Recordkeeping

- [Planning for My Project Adventure](#) (PA093) (*Ages 8-10*)
- [ND 4-H Project Plan](#) (PA095)
- [ND 4-H Plan of Action](#) (PA096) (*Ages 11-18*)
- [ND 4-H Participation Summary for 11- to 19-year-olds](#) (PA098)

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