



**COLORADO STATE UNIVERSITY
EXTENSION**



Woodworking

Project units 1-4 are designed for members 8-18 years old.

Unit 1 - Measuring Up

Inspiring youth to:

- Learn how to organize your shop
- Learn how to identify woodworking tools
- Practice woodworking safety
- Learn how to measure and mark boards, use a square, a hand drill and a hand saw
- Identify different types of nails and screws
- Make a sandpaper block
- Construct a butt joint and use a hammer safely

Unit 2 - Making the Cut

Inspiring youth to:

- Learn how to select wood based on grain
- Recognize the difference between plywood and fiberboard
- Learn how to develop a plan
- Learn how to use a combination square and make a miter cut
- Learn how to make a curved cut
- Learn how to use a sander
- Learn how to identify types of woodworking tools and much more!

Unit 3 - Nailing it Together

Inspiring youth to:

- Learn how to stay current with technology
- Learn how to use a T-bevel, powered circular saw, and radial arm saw
- Learn about hinges, hasps, and flush plates
- Learn the difference between clamps
- Learn how to use various types of wood stains and much more!

Unit 4 - Finishing Up

Inspiring youth to:

- Design a woodworking shop
- Use a router, jointer, portable planer and scraper
- Learn about dovetail joints
- Learn how to use bleaches, strippers, and adhesives
- Learn how to build a wood vehicle, hockey board, step stool or chair and much more!

Colorado State University, U.S. Department of Agriculture and Colorado counties cooperating. To simplify technical terminology, trade names or products and equipment occasionally will be used. No endorsement of product names is intended nor is criticism implied of products not mentioned.

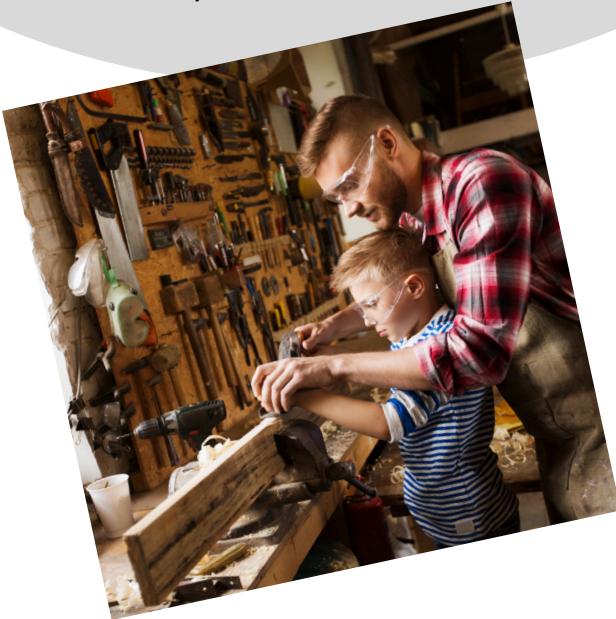
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Woodworking

Project Tips:

- Complete the woodworking e-record and secure in a sturdy binder/notebook.
- Unit 1 has very specific restrictions on the tools used in building an article to display. This is done for reasons of safety and to provide a fair comparison among projects.
- An exhibit which shows evidence of not following these restrictions will not be ranked.
- The internet has many options to find dimensional plans.



Judging Criteria:

- Straightness, accuracy and smoothness of saw cuts
- Level of difficulty and precision of joints
- Skill employed in the use of nails, screws, gluing and other hardware
- Item free of tool or sandpaper marks
- Appropriate finish evenly applied
- Article attractiveness and quality of exhibit
- Correct proportions and proper wood for the intended use
- Accuracy in measurements, ability to follow instructions, quality of workmanship



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Resources:

- Exhibit & Judging Requirements
- Record Books
- Manual Information

Located at: Colorado4h.org



**Beyond
Ready**

Woodworking Industry Careers



Regulation & Inspection

Work with manufacturers, government, retail, research, and more to ensure safe products and structures



Fabrication & Repair

Create and design products as well as repair and rebuild



Research

Test out products, designs, and methods; Work with consumer safety and support



Timber Growth & Harvest

Grow and harvest of different wood products for consumer and industrial use



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Degrees/Certifications:

Construction Technology
Education
Forestry
Horticulture
Tourism/Business
CAD Technician/Design
Mechanical Engineer
Research



Arborist

Provide support and work with different businesses for tree growth and conservation



Supervision & Management

Provide oversight of projects, builds, and staff to complete work



Retail

Provide sales of products at different retail levels to support the woodworking industry



Advocacy/Political Appointments

Opportunity to influence policy, safety protocols and standards for the industry