



4-H Wood Science Project

Kansas 4-H focuses on the mastery of 5 life skills:

1. A positive self-concept
2. An inquiring mind
3. A concern for the community
4. Healthy interpersonal relationships
5. Sound decision making

The subject matter content in 4-H focuses primarily on three mission areas:

1. science
2. healthy living
3. citizenship and leadership

Advice from a 4-H'er

From: Seth, Age 13 (2015)

You can make beautiful wood projects and wooden items can be fixed and restored in the woodworking project. It's one of my favorite 4-H projects!

Most woodworking project leaders have machinery such as table saws, band saws, scroll saws, and lathes to learn to operate. These machines help you cut the pieces of your project and sanders or sand paper can help you finish your project with a smooth surface. More common tools like a drill, hammer or screwdriver help to assemble your item. Last of all, your project will be completed with a wood stain or paint.

You will learn to measure and be accurate in your measuring. The rule, "Measure twice, cut once", helps you avoid mistakes and keeps you from wasting wood. Plus, accuracy in measuring helps your project fit together nicely and avoid gaps in the sides of your project. You want it to be as perfect as possible!

When I enter the woodshop, I know the possibilities of what I can create are endless. I get excited just entering the room and planning my next woodworking project. I think if you try this project, you'll love it too!



Seth working on a woodworking project

Project levels

Age 7-9	Age 10-13	Age 14 +
<ul style="list-style-type: none"> ◆ Identify tools and needs for your work area. ◆ Learn safety rules, tool safety settings and how to use safety gear. ◆ Identify what different woods look and feel like. ◆ Finish wood projects by sanding and painting. 	<ul style="list-style-type: none"> ◆ Learn how to use the right hand tools. ◆ Determine which woods are good for a product. ◆ Learn to measure and cut angles. ◆ Learn the importance of proper sanding and finish application. 	<ul style="list-style-type: none"> ◆ Use stain to emphasize the grain of wood. ◆ Understand the difference between wood, laminates and veneers. ◆ Learn correct and safe use of power tools. ◆ Explore woodworking careers and opportunities.

The activities above are ideas to inspire further project development. This is not a complete list.



Events

State & County Opportunities

- ◆ Club Day
- ◆ County Fair
- ◆ State Fair
- ◆ Discovery Days

Check with your club to see what opportunities are offered at the club level as well.

Curriculum

Available to purchase at the Extension Office (check to make sure it's in stock)

- ◆ Project Books 1-4
- ◆ Leader Guide

Wood Science curriculum can also be purchased at the K-State online bookstore or the 4-H Mall.

4-H Record Book

4-H Record Books give members an opportunity to record events and reflect on their experiences. For each project, members document their personal experiences, learning and development.

4-H Record Books also teach members record management skills and encourage them to set goals and develop a plan to meet those goals

For more information visit www.johnson.k-state.edu/4-h/forms-resources/record-books.html

Resources:

Visit

<http://www.johnson.k-state.edu/4-h/project-club-resources/projects.html>

to also find the following links.

Kansas 4-H Wood Science Website:

- ◆ <http://www.kansas4-h.org/projects/science-engineering-and-technology/woodworking.html>

Other helpful Wood Science websites around the country:

- ◆ <http://lifestyle.howstuffworks.com/crafts/other-arts-crafts/wood-crafts.htm>
- ◆ <http://www.ksre.ksu.edu/bookstore/pubs/4H167.pdf>
- ◆ <http://www.insidewoodworking.com/>
- ◆ <http://www.woodnet.net/>
- ◆ <http://www.extension.iastate.edu/4hfiles/projects/hotsheets/WoodworkingHotSheet.pdf>
- ◆ <http://www.hse.gov.uk/woodworking/index.htm>
- ◆ <http://www.woodnet.net/tips/index/>



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Exploring Opportunities

- ◆ Prepare an exhibit that explains types of wood and best applications for each.
- ◆ Give a safety demonstration for safe woodworking tool usage.
- ◆ Develop an exhibit comparing different wood finishes
- ◆ Build a bird feeder for a neighbor.
- ◆ Build toys out of wood for a homeless shelter.
- ◆ Make a bench and donate it to charity.
- ◆ Join a Habitat for Humanity build.
- ◆ Conduct a basic building workshop for a younger club.
- ◆ Be a project helper for younger members in woodworking.

Exhibit Ideas

- ◆ Make and finish a piece of furniture.
- ◆ Build a tack box for your show animal project.
- ◆ Create a poster or notebook on safety precautions when working with wood and tools.
- ◆ Develop an exhibit on woodworking tool(s) and what they are used for.
- ◆ Create an exhibit on various woodworking techniques.

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