National 4-H Curriculum
BU-06879

Woodworking Wonders Group

Helper's Guide

Woodworking Group Activity Guide

Name _____

County _____

REVIEWED & RECOMMENDED
National 4-H Curriculum

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Welcome to the Woodworking Helper's Guide

As a volunteer you are in a unique position to not only help teach a worthwhile subject such as woodworking, but also to help mold young people into self-confident adults who know how to learn and to accomplish goals using their own initiative.

Young people need the support of concerned adults. You're a vital resource for youth as they learn the technical expertise necessary to safely craft wood into projects. The curriculum of life skills and technical skills is based upon an experiential learning model in which youth learn by doing activities themselves with the help of you and other skilled individuals.

Experiential learning focuses on helpers who encourage youth to ask questions. Helpers can guide youth to see how woodworking skills can apply to their lives. In the process of learning, youth learn how to set goals, identify resources, practice communication skills and evaluate their own progress. The questions at the end of activities will help youth to see what they've learned in both woodworking and life skills.

The Woodworking Wonders Series

The Helper's Guide is the last book in the *Woodworking Wonders* series. It is written for adults and older youth working with groups. It includes a variety of activities that may be used with a group as well as ideas for developing additional woodworking educational activities.

The four youth activity guides are written in a sequential order of difficulty from level one through level four: *Measuring Up*, for grades 2–4; *Making the Cut*, for grades 4–6; *Nailing It Together*, for grades 6–8; and *Finishing Up*, for grades 9–12. Although the books were written for specific age groups, they could be used, with the helper's discretion, with youth of different ages based on abilities and experience.

Each of the books includes an achievement program. It is important that helpers encourage youth to complete the achievement program. Questions at the end of activities reinforce woodworking and learning skills plus suggest ways youth can apply these skills to other aspects of their lives.

Your Responsibilities

- Assisting youth as they complete the activities in this book.
- Directing youth to think through why something happens—or, why it didn't happen.
- Helping youth choose woodworking projects that are appropriate for their skill level.
- Helping youth do difficult tasks without doing it for them.
- Helping youth evaluate the quality of their work.
- Emphasizing safety rules for youth.

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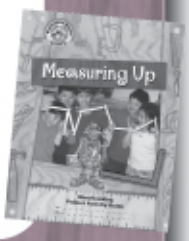
For more on woodworking, look for these other guides in this set

Measuring Up

Chapter 1 - Getting Started
Finding Your Place
Tools and Equipment
Safety Is No Accident
Chapter 2 - Working With Wood
What's Wood?
Chapter 3 - Practicing Your Skills
Taking Measure
Pounding Away
I Saw, You Saw, Handsaw
Chapter 4 - Making Connections
Holding It Together
Sticking Together
Butting Up
Chapter 5 - Finishing Up
Sanding Tips
Painting—The Finish
Project Plans
Flower Box
Letter or Napkin Holder
Picture Frame



Making the Cut

Chapter 1 - Getting Ready
The Right Tools
Safety First
Exploring Woodworking Careers
Non-Money Bills
Chapter 2 - Starting With Wood
Selecting a Project
Species Makes a Difference
Chapter 3 - Fitting Together
Every Screw Needs a Screwdriver
Combination Squares
Cutting on the Angle
Chapter 4 - Finishing Factors
Rough Paper
Pad Power
That Liquid Finisher
Brush Away
Project Plans
Napkin/Letter Holder
Birdhouse
Footstool

Nailing It Together

Chapter 1 - Careers in Woodworking
What's the Latest?
Careers You Can Choose
Chapter 2 - Making Connections
Hanging Around
Clamping Techniques
Connecting Rods
Living on the Edge
Dado Joints
Chapter 3 - Finishing Flourish
Staining
Chapter 4 - Making a Mark
Getting an Angle on Things
Plan Magic
Planes Away
Chapter 5 - Is it Wood?
Laminating Wood
Plywood
Project Plans
Bookcase
Jigsaw Puzzle
A Box of Many Uses

Finishing Up

Chapter 1 - Planning and Doing
Tools for the Expert
Wood 'n Money
Chapter 2 - Power Tools
Tools of the Trade
Taking the Edge Off
Cutting With Power
Chapter 3 - Joinery
Dovetail Joints
Mortise and Tenon Joints
Chapter 4 - Exotic Woods
Woods of the World
The Art of Veneer
Overlays and Inlays
Chapter 5 - Advanced Finishing Techniques
Sanding With Power
Sticking Together
Refinishing
Project Plans
Step Stool/Chair
Table Hockey Game

Woodworking Wonders

Helper's Guide

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Ages and Stages

Helpers of all ages need to know and periodically refresh themselves about the learning characteristics of the youth they are guiding or teaching. Knowing developmental stages can help explain a headstrong teen or a seven-year-old who can't sit still to a baffled or discouraged helper or parent.

Likewise, helpers should note that the youth activity levels in the Woodworking Wonders series are based on skill levels corresponding to age in a sequential manner. Therefore, if a 12-year old begins woodworking for the first time, the helper should seek the skill set found in level one, instead of that in level three.

Ages 7 and 8

Physical growth can be described as slow and steady. Mastering physical skills is important to self-concept. This includes everything from printing with a pencil to large muscle skills like catching a ball. Activities need to focus on active! Provide opportunities to practice skills, but use projects that can be completed successfully and quickly by beginners.

Typical second or third graders think in concrete terms. If they have never seen it, heard it, felt it, tasted it, or smelled it, they may have a hard time conceiving of a new idea or thing. Adults can help by giving children this age a comparison. Helpers should show and tell, rather than give instructions verbally. Early elementary-age children are learning to sort things into categories. This makes collecting items important and fun at this age. Most are more interested in the "process" — What? Why? How? — than in the resulting product.

Children of this age start transferring their dependence on parents to another adult, so the helper may become very important in their eyes. Building friendships occurs easily and generally by the end of this period, boys prefer playing with boys and girls with girls. Peer opinion now becomes very important. Small group activities are effective, but children still need an adult to share approval.

Seven and 8-year-olds need and seek the approval of adults, because they are not yet confident enough to set their own standards. Play or making believe is one way they increase their ability to imagine what other people think and feel. Rules and rituals are important, but it is very hard for children this age to lose. This is why success needs to be emphasized, even if it is small. Failures should be minimized. Cooperative games and activities are especially enjoyable. When an activity fails, adults should help children interpret the reasons for the failure, which helps to teach that failing is not bad. Learning to cope with problems is a skill that helpers can emphasize for all children. Ribbons or trophies awarded for competitive activities should be minimized or avoided at this age.

Ages 9, 10 and 11

Physically most children at this age are in a holding pattern, although puberty may be starting for some very early-maturing girls. Activities should encourage physical involvement, because 9-11-year-olds are anything but still and quiet.

Hands-on involvement with objects is helpful. Children this age like field trips, but only if they are not expected to stay confined or to do one thing for a long period of time. Upper elementary children need opportunities to share their thoughts and reactions with others. They are still fairly concrete thinkers and their attention is best kept when seeing and doing things.

Thinking logically and symbolically and understanding abstract ideas are just beginning at this age. At this age, youth categorize ideas as right or wrong, great or disgusting, fun or boring. There is very little middle ground.

The role of the helper is most crucial at this stage as children look to the adult for approval and follow rules primarily out of respect for the adult. Evaluation of an individual's skill or project by an adult is preferable to group competition. They want to know how much they have improved and what they can do to be better next time. Encouragement from an adult can have remarkable results with children of this age.

This is the age of the "joiners." Older elementary-age children like to be in organized groups of others similar to themselves. If you have both boys and girls of this age in your group, you will do best if small group work is done in same-sex groups. They generally are concerned with immediate self-reward. However, the satisfaction of completing a project comes from pleasing the leader or parent rather than from the value of the activity itself.

Toward the end of this age range, children are ready to take responsibility for their own actions. Giving these youth opportunities to make decisions should be encouraged. Leaders should move from dictating directions to giving reassurance and support for members' decisions.

Nine, 10- and 11-year-olds have a strong need to feel accepted and worthwhile. School and other pressures become demanding. Successes should continue to be emphasized. Comparison with the success of others is difficult for these children. It erodes self -confidence. Instead of comparing children with each other, build positive self-concepts by comparing present to past performance for the individual.

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Ages 12, 13 and 14

This is a time of developmental variety among peers. Growth spurts beginning with adolescence occur at a wide range of ages, with girls maturing before boys. These rapid changes in physical appearance may make teens uncomfortable. Slower developing teens may also be uneasy about the lack of changes.

Young teens move from concrete to more abstract thinking. Playing with ideas is as much fun as playing sports. Ready-made solutions from adults often are rejected in favor of finding their own solutions. Helpers who provide supervision without interference will have a great influence on these youth.

Small groups provide the best opportunity for young teens to test ideas. Justice and equality become important issues. Judging of projects is now viewed in terms of what is fair, but it also is seen as a reflection of self-worth of the individual.

These youth enjoy participating in activities away from home as they begin to develop independence. Opinions of peers become more important than opinions of parents or other adults. Close friendships begin to develop, and group experiences provide opportunity for social acceptance.

As puberty approaches, emotions begin a roller coaster ride. Young teens begin to test values and seek adults who are accepting and willing to talk about values and morals. This period seems to present the biggest challenge to a young person' s self -concept. These youngsters face so many changes that they may have a difficult time defining themselves. Adults can help by providing self-knowledge and self-discovery activities. Look for quizzes or activities that will help young teens discover aspects of their personalities.

Continue to avoid comparing young people with each other, being careful not to embarrass them. They want to be a part of something important that provides opportunity to develop responsibility.

Ages 15, 16 and 17

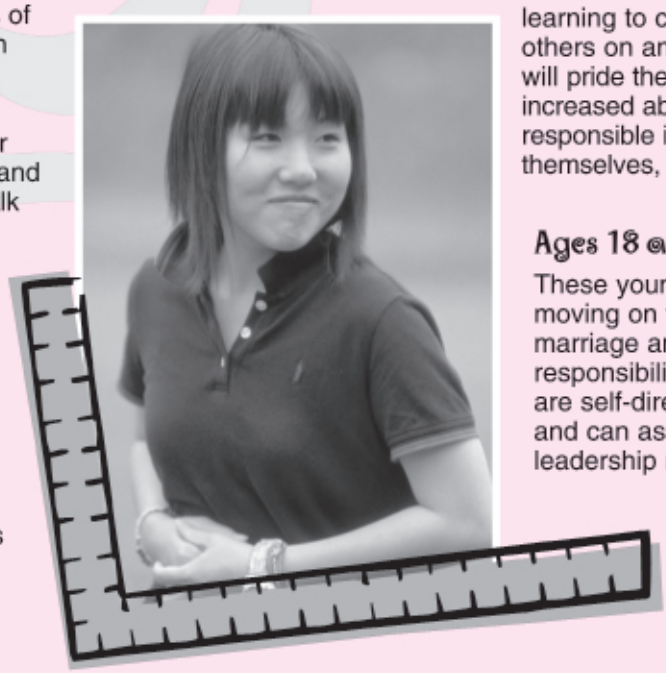
Most teens of this age know their own abilities and talents. In most cases, they have adjusted to body changes brought about by puberty. Many develop athletic talent and devote hours to training and competition. Learning to drive a car further moves the teen from family into the community as independent people.

Mid-teens begin to think about their future and make realistic plans. Their vocational goals influence the activities they select. Teens set goals based on feelings of personal need and priorities. Any goals set by others are rejected. As they master abstract thinking, they can imagine things in ways that sometimes challenge adults.

These teens can initiate and carry out tasks without supervision. A helper can arrange new experiences in areas of interest to teens, but must be sure to allow for plenty of input from them. The helper's relationship to mid-teens should change from that of director to advisor.

Mid-teens tend to be wrapped up in themselves. Relationship skills are usually well developed. Dating increases and acceptance by members of the opposite sex is now of high importance. Sports and clubs are important, but these teens now want to be recognized as unique individuals within that group.

Two important emotional goals of the middle-teen years are independence and identity. Time is precious. If activities are perceived as busywork, teens soon will lose patience and interest. Middle teens are learning to cooperate with others on an adult level. They will pride themselves on increased ability to be responsible in the eyes of themselves, peers, and adults.



Ages 18 and 19

These young adults are moving on to college, jobs, marriage and other adult responsibilities. Late teens are self-directed learners and can assume adult leadership roles.

Reference: North Central Regional Extension Publication No.292, Ages and Stages of Child and Youth Development: A Guide for 4-H Leaders. Karnes, Jeanne and Myers-Walls, Judith. Purdue University.

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Developing Life Skills

Developing life skills is equally important to developing project skills. The youth guides focus on three life skills: planning and organizing, communicating and making decisions. Mastering these skills will help youth develop into responsible adults.

Planning and Organizing

Importance of the life skill

Planning and organizing will help youth learn to set goals, assign tasks and work efficiently without supervision. In the process, youth will learn to practice teambuilding, communicate with peers and adults and meet deadlines. Learning these traits will build self-confidence.

Development ideas

Give youth experience in planning and organizing individual and group activities, demonstrating, setting up skillathons, nurturing other youth, learning cooperatively, creating and managing community projects, working with people who are different from themselves, assessing results and communicating.

Making Decisions

Importance of the life skill

In learning how to make decisions, youth will learn to recognize how personal values influence their own decisions and those of others, to develop an individual decision-making process, to set priorities, to make informal decisions and to evaluate their own decisions.

Development ideas

Give youth experience in identifying their own values that influence decisions—identifying problems, gathering information, comparing and selecting from alternatives, judging and presenting reasons, debating and making real decisions and anticipating the results of actions that have significant consequences.

Communicating with Others

Importance of the life skill

Good communication skills will help youth exchange ideas and information clearly and minimize confusion for themselves and others. Personal relationships will tend to be more satisfying as they share feelings honestly and resolve conflict in healthy ways. Communication skills also help transitions in events or with people go smoothly as youth learn to give and receive support from others.

Development ideas

Relating to ideas can take place on many levels, Youth should be exposed to the idea of verbal and nonverbal communication, Listening skills and conflict management are just as much a part of communicating as public speaking. Art, music, drama and other expressive arts can be effectively used to explain communication. Encourage public as well as personal communication. Offer opportunities for exchanging ideas, labeling and sharing feelings. Involve diverse groups in cooperative projects.

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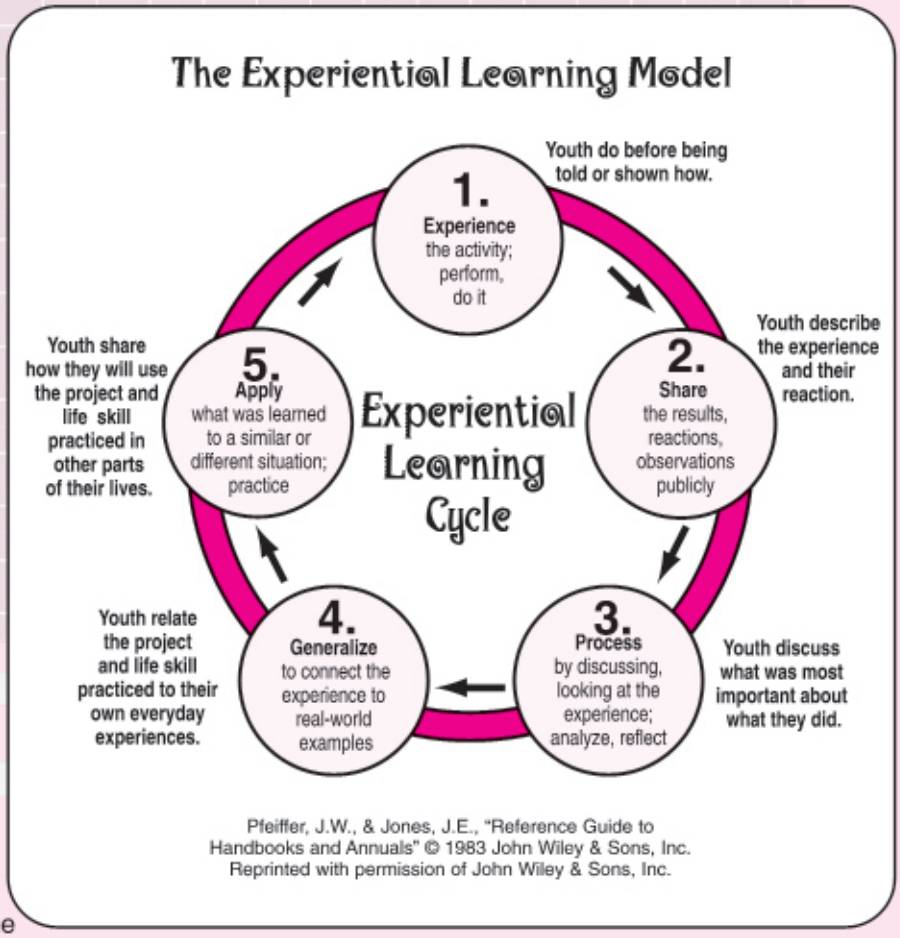
Defining Experiential Learning

You'll notice that each of the activities in the Woodworking Series, as well as those in all other curriculum products that have qualified for the National 4-H Collection, use the experiential learning model. The objective of developing project subject matter and personal life skills in a single activity or series of related activities is successful with experiential learning because it engages learners in the activity, encourages them to think more, work harder and ultimately learn more thoroughly than with traditional teaching methods.



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annuals" © 1983 John Wiley & Sons, Inc. Reprinted with permission of John Wiley & Sons, Inc.

Experience

The model begins with an experience. Action! This immediately focuses the attention on the learner rather than the teacher. When the learner is encouraged to learn by doing before being told or shown how, opportunities are presented for a wide variety of life skills to be practiced depending on the method used to engage the youth in the experience. Helpers are encouraged to "sit on your hands" as much as possible during the experience step. You and the youth involved will quickly learn what the skill or knowledge level is. Many times you will hear "We figured this out all by ourselves!"

Share

As the model shows, sharing is simply asking the group or individuals: What did you do? What happened? What did it feel like to do (whatever)? This step should generate lots of information that will lead to the process step.

Process

The questions and discussion now become more focused on what was most important about the experience. Common themes that emerge from the sharing session are explored further. Often the key teaching points related to the subject matter are discussed.

Generalize

In this step the discussion becomes more personal. "So what?" is the question. What did the experience mean to me personally? How does it relate to my everyday life? While the subject matter alone could remain the focus of the discussion in all five steps of the model, life skill development is equally important and should be a major part of the discussion. Helpers should ask what life skills were practiced while doing the activity or during the experience. If youth worked in teams to complete an activity, then questions about teamwork would be appropriate. Likewise, if an activity calls for communicating skills, then communications skills could be discussed.

Apply

What was learned and how can youth apply it to their lives? Better yet, can youth show their mastery of a skill by performing another activity that requires the new skill to be used? Again, the emphasis is placed on the life skill practiced rather than the subject matter skill.

"Experiential learning takes place when a person is involved in an activity, then looks back and evaluates it, determines what was useful or important to remember and uses this information to perform another activity."

— John Dewey

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Making Meeting Plans

Woodworking offers exciting opportunities for youth to develop important project and life skills. Clubs and groups that plan their programs together are more likely to stay involved and interested. This activity has been designed to help your group make plans that everyone will want to support. You will find activities for involving your group in the planning process. A list of possible woodworking meeting topics is found at the end of this guide.

What Group Will Do: Plan a program of group woodworking activities

Life Skill: Planning and organizing

Woodworking Skill: Planning woodworking activities

Science Process Skill: Communicating

Target Audience: K–12

Time: 1 hour

Suggested Group Size: 3 to 20

Toolbox: Pencil, paper, flip chart or blackboard, poster paper (optional), woodworking project achievement programs, activity guides, resource materials such as magazines, books with woodworking plans

Getting Started

If you are meeting in a club setting with younger children, you may want to talk to parents to see what they feel their children need and how your organization can help. At the meeting, ask the youth and their parents to discuss what they would like to learn and do. If you're in a classroom setting, you can still get parent input. With mid-to-older teens, you may be more autonomous in assessing needs, or you may work with the teens themselves in setting up a program.

You can look through the youth woodworking activity guides and the list of meeting topics for additional ideas. Your role is to create a setting in which youth (and parents) can develop both woodworking and life skills. Helping a group plan a program or just one meeting takes a lot of patience and the ability to "sit quietly by" while the members work together. Here is a technique for generating ideas and arriving at decisions.

Working Together

Have everyone review the topics in the appropriate woodworking activity guides. Then ask each person to write ideas for group meetings and supporting activities (field trips, tours, community service etc.). Sometimes youth can generate more ideas by working together in groups of two or three, with one person writing down the ideas. Allow five to ten minutes.

Have one person or group share his/her/their ideas in a round-robin fashion. As the ideas are spoken, a designated person will record them on a blackboard or a large sheet of paper. List the ideas quickly without discussion. After all ideas are listed, provide time for the person or group who suggested the idea to clarify or explain it. Others can add support, questions or criticism. After a short discussion, move to the next idea.

From all the ideas generated and discussed (and possibly combined), have each individual or group rate the items in order of preference on a separate sheet of paper. You may want to have them indicate their top five, ten or whatever choices.

Read each idea and have members rank them. Add up the numbers. Allow time to discuss the choices as they relate to the group's overall goals. From the decisions made, make up the list of topics for the program.

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Resources

Books

Woodworking for Kids
Kevin McGuire
Sterling Publishing Co., Inc.
New York, NY

Woodworking Wonders Series
See the inside back cover for ordering information

Magazines

Fine Woodworking
The Taunton Press, Inc.
63 South Main Street
P.O. Box 5507
Newtown, CT 06470-5507
800-888-8286

Home Furniture
The Taunton Press, Inc.
63 South Main Street
P.O. Box 5507
Newtown, CT 06470-5507
800-888-8286

Popular Woodworking
1507 Dana Ave
Cincinnati, OH 45207
505-280-1721

Shop Notes
P.O. Box 37103
Boone, IA 50037
800-333-5075

Weekend Woodcrafts
P.O. Box 550
Mt. Morris, IL 61054
800-430-6795

Weekend Woodworking Projects
P.O. Box 55364
Boulder, Co. 80322-5364
800-374-3669

Wood Magazine
P.O. Box 37439
Boone, IA 50037
800-374-9663

Woodshop News
35 Pratt Street
Essex, CT 06426
800-243-9177

Woodsmith
P.O. Box 37112
Boone, IA 50037
800-333-5057

Woodworker
P.O. Box 10034
Des Moines, IA 50350-0034
800-925-6241

Wood Worker's Journal
P.O. Box 56585
Boulder, CO 80328
800-77654119

Workbench
P.O. Box 37272
Boone, IA 50037
800-444-1009

World Wide Web

There are thousands of sites on the Web with information on various aspects of woodworking. Search words to try can include the processes or materials in which you're interested such as "veneers," or "plywood." You might also try "woodworking," or specific tool names.

Other Sources

Your county office of the Cooperative Extension Service can also offer you information on woodworking, or possibly help you find local resources. In the phone book, look under your state's land-grant university name and you should find a listing.

Don't forget to check your local library. It can be a good resource for books, but may also have listings of local organizations that might offer you help. Contact your chamber of commerce office for lists of woodworking groups or organizations.

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National 4-H Curriculum

Discover over 180 National 4-H Curriculum titles in mission areas of Science, Engineering and Technology; Healthy Living; and Citizenship. Youth activity guides are filled with fun, engaging experiences that cultivate abilities youth need for everyday living as they progressively gain knowledge about subjects that interest them.

All titles have been reviewed and recommended by the National 4-H Curriculum Jury Review process, signifying their excellence in providing hands-on learning experiences for youth.

Science, Engineering and Technology

Agricultural Science
- Afterschool Agriculture

Animal Science
- Beef
- Cat
- Dairy Cattle
- Dairy Goat
- Dog
- Embryology
- Entomology
- Exploring Farm Animals
- Horse
- Meat Goat
- Pets
- Poultry
- Rabbit
- Sheep
- Swine
- Veterinary Science

Engineering and Technology
- Aerospace Adventures
- Electric Excitement
- Exploring 4-H Robotics
- Geospatial
- Sewing Expressions
- Small Engines
- Woodworking Wonders

Environmental Science
- Exploring Your Environment
- Forestry—Forests of Fun
- Fishing for Adventure
- Outdoor Adventures

Plant Science
- Down-to-Earth—Gardening in the Classroom
- Gardening

Science Discovery
- Science Discovery Series

Healthy Living

Health and Fitness
- Bicycle Adventures
- Child Development—Kids on the Grow
- Keeping Fit and Healthy

Nutrition
- Foods
- Microwave Magic

Citizenship

Communication and Expressive Arts
- A Palette of Fun
- Communications—Express Yourself!
- ¡Qué Rico! Latino Cultural Arts
- Theatre Arts
- Visual Arts

Community Action
- Citizenship—Public Adventures
- Service Learning

Leadership
- Exploring 4-H
- Step Up To Leadership

Personal Development
- Consumer Savvy
- Financial Champions

Workforce Preparation
- Be the E—Entrepreneurship
- Get in the Act!

Resources

- Experiential Learning Video

Find more about **Woodworking** and other projects online at:

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The 4-H Pledge

I pledge
my Head to clearer thinking,
my Heart to greater loyalty,
my Hands to larger service, and
my Health to better living,
for my club, my community,
my country, and my world.

Group Activity Guide

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