



## Working with Young People

How can the wood science program be tailored to the needs of boys and girls at different levels of maturity? In general, young people at certain ages have identifiable characteristics. The subject matter and style of presentation can usually be tailored to meet the needs of various age groups. Some of the characteristics of three groups are identified:

### 9–12 Year Olds

- Are active
- Are interested in tangible ideas, not abstract
- Have short attention span
- Need and accept guidelines from adults and teens
- Like group activities
- Are easily motivated, eager to try new things
- Need recognition and praise
- Like to be with members of their own sex

### 13–15 Year Olds

- Like to explore community beyond immediate neighborhood
- Have a broadened span of interests
- May find it hard to accept help from older people
- Are beginning to think of what they'll do when they grow up
- Are often questioning
- Are often self conscious

### 16–19 Year Olds

- Look toward adulthood and career
- Have longer attention span

- Are developing selected interests; choose a few and study fully
- Handle abstractions; understand principles behind ideas
- May understand that there are no simple answers
- Work cooperatively with adults
- May be ready to give leadership to younger club members
- Need guidance regarding vocations
- Desire and need a strong voice in planning own activity
- Are interested in traveling

These characteristics are only generalizations and should be used as a base for dealing with youth. Each 4-H'er has his or her own unique qualities.

### Your Challenge

An effective 4-H leader is an adult or teen who makes it possible for 4-H'ers to get together as a group to learn to do things they would not do alone. A successful leader offers security, suggestions, and support; has the confidence of the members; understands their viewpoint; is tolerant, patient, and sympathetic. A leader makes friendly suggestions that will encourage members to broaden their educational experiences, and the wise leader recognizes work well done in such a way that 4-H'ers will be encouraged to do even better. The group is only meaningful when the individual members are the doers and the learners. 4-H teaches "learning by doing." Remember, members' mistakes can actually be helpful learning experiences. The "leader" is really a helper, and leadership is "helpership." As your 4-H'ers grow and develop in their wood science program, they too can become helpers of others.

### Tips for Helpership in Wood Science and Woodworking

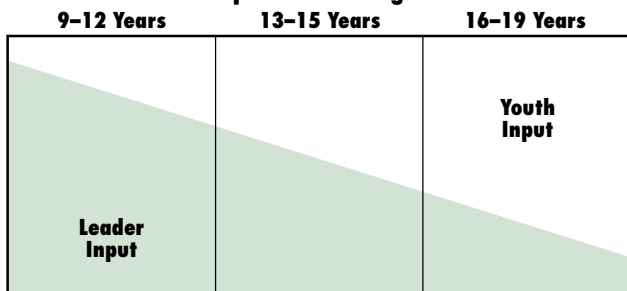
1. Read the section called "Basic Information About Wood" found in this leader guide.
2. Obtain a set of the member manuals that accompany this guide and study them together. Become familiar with all the project materials.
3. Familiarize yourself with available resources and use them. (See the "Resources" section in the back of this manual.)
4. Help members set goals they can realistically meet. Help them plan and select woodworking projects that suit their age and abilities.
5. Don't do project work for members.
6. Familiarize yourself with the woodworking tools, materials, and machinery being used in this project.

### Hints for Working With Young People

As an effective leader, you want to remember that at each age level there is a need to emphasize different skills and provide different degrees of leader input. As members grow older or progress in projects, the need for leader guidance decreases.

You will want to be aware of your members' development and reinforce positive attitudes. The characteristics listed here for the various age levels may help you in planning your role as a 4-H leader.

**Proportions of Leader Input and Youth Input at Three Age Levels**





Supervise members whenever using tools and machinery, especially power tools.

7. Avoid comparing the progress of one member with that of another.
8. Praise members for a job well done.
9. Help members get to know themselves, including their strengths and weaknesses.
10. Don't determine or direct all of the group's activities. Let the members share in the planning.
11. Solicit the help of parents, families, and friends, when needed.

## Program Division

The national 4-H wood science program literature is divided into three units. Units are planned as 1-year projects. After Unit I, each additional unit becomes more difficult than the preceeding one. Ideally, a 9- to 12-year-old member will enroll in Unit I the first year and in a new unit each of the following years.

Every member should have the program manual that corresponds to the unit in which he or she is enrolled. As a 4-H wood science program leader, you should have copies of all manuals used by your members.

**Unit I "Working With Wood and Tools"** presents elementary information about wood structures. It explains how to buy and use lumber and plywood. It tells how to measure, mark, cut, sand, and smooth wood, how to use glues and finishes, and how to use a variety of beginner woodworking tools, such as crosscut and coping saws, C clamps, and electric woodburning tools. Woodworking plans are included for making simple items from wood.

**Unit II "The Wonderful World of Wood"** is designed to help 4-H members continue to grow in their ability to create and assemble items of wood. It discusses more sophisticated processes and tools than those found in Unit 1. It tells the steps involved in converting trees into wood products. It discusses grains, how warping and swelling affect the use of wood, how to use the grid system to make patterns of irregular shaped objects, and introduces additional woodworking tools. The combination square, pencil compass, hand drill, bit brace and auger, and rip and compass saws are included. Electric tools and safety rules for using them are introduced. The electric drill, jig and saber saws, and oscillating sander are presented. Woodworking plans are provided for utilizing these tools.

**Unit III "Building Bigger Things"** covers the physical structure, properties, and characteristics of wood, and helps members better understand how the properties of wood affect its use. It tells how woods are named and classified, discusses economics of the forest

products industry, and introduces more woodworking tools and machinery. Simple activities and experiments are included to help members learn more about wood.

### Project Records

The 4-H project record is important. It helps the 4-H'er remember what has been done, and it serves as a kind of measuring stick. The recorded information keeps both the member and leader informed of progress being made in the project. A record form is available for this project. Record forms may be supplied by the local Extension office or State 4-H office. Contact your local 4-H office for further information.

## Your Job as a Leader

### Leader Liability

The question of liability is very difficult to answer. Generally speaking, the 4-H leader is not liable unless proven negligent. The liability clause of homeowners' insurance policies will give protection in some cases. It is wise to ask your insurance representative for details. Some 4-H leaders subscribe to a group accident insurance. If you are interested in a policy of this type, ask your insurance representative, or contact the person in charge of 4-H in your local area.

### Budgeting Your Time

The time you devote as a wood science program leader will vary with the number of members in your group and the extent of your involvement with them, the type of activities you provide, and the goals you and your 4-H'ers establish. It is important that sufficient time be devoted by both adult and teen leaders to operate a safe, effective, educational program. In budgeting your time, consider the following:

1. Beginning leaders should plan to attend leader-training meetings held in their area.
2. Plan adequate time for studying both the leader's guide and the member manuals.
3. Provide sufficient time to plan thoroughly the organization of all meetings, including pledges, inspirational sessions, recreation, and refreshments, if they are appropriate.
4. Plan for "hands on" workshops in addition to other meetings. Ninety-minute workshop-type meetings may be ideal for younger members, while 120- to 150-minute sessions might be more acceptable for older 4-H'ers.
5. Provide sufficient time to help all members individually, particularly those with special needs. In the wood science area, "shortcuts," missing procedural steps, and limited instruction are dangerous and educationally limiting.



6. Provide sufficient time for both leaders and members to exhibit at local fairs, 4-H congresses, conferences, and wherever they have the opportunity.

Schedule meeting times so that members will have an opportunity to plan and participate in “learning” and “doing” experiences. Put forth a special effort to meet the goals of members, teen leaders, and other adult leaders. Finally, plan time with individual members to evaluate their accomplishments and the achievements of the club or group.

## Facilities for Meetings

The facilities necessary for 4-H wood science meetings will vary according to the number in the group, the type of meeting planned, the time of year, and weather conditions. Developing “learning” and “doing” goals can be accomplished in any number of informal, leisure type situations; for example, while sitting in the shade of a tree or in a leader’s basement. Activities such as nail driving contests can be held in similar places. Learning situations such as demonstrating how to drive, pull, and straighten nails with a hammer can be conducted on an old table out-of-doors, or in a garage or basement area.

Ideally, the workshop area should be maintained for 4-H wood science club meetings. It should include work and storage space for materials and equipment for as many youngsters as are in the club. Safety, of course, is foremost in determining the amount of space needed. Younger members working on small items may need only limited space. As both 4-H’ers and their projects grow throughout the year, it may be necessary to expand the work area.

Temporary work benches may be constructed by attaching homemade vises to pieces of plywood securely fastened to the top of sawhorses. One 4’ x 8’ area should provide adequate space for six people by making one station at each end and two on each side. Stop blocks and bench hooks should be provided as holding devices. The bench vises may be attached directly to the plywood. However, many leaders prefer to attach a vise to a smaller piece of plywood and then fasten the assembled unit to the plywood with screws.

## Planning Program Meetings

Initiative, enthusiasm, and organizational ability are good attributes in planning meetings. Many leaders will have grown far beyond the need for the detailed instructions which follow. However, a new wood science program leader may find these suggestions helpful for starting and conducting meetings.

## First Meeting

### Preparation

1. Obtain a list of club or group members, a set of wood science literature for each member, and tools and materials to be displayed in the work area to help generate interest.
2. Decide on the date and time of the meeting (both starting and ending), location of the meeting, method or plan for conducting the meeting, and items the members should provide.
3. Notify members and other project leaders by one or more of the following methods:
  - Announcement at a general club meeting
  - Announcement in the club newsletter
  - Send a card or letter to members and leaders
  - Telephone, with the assistance of junior leaders or older members.

A communications committee will save you many hours of work.

### Conducting the First Meeting

1. Meet the members in a friendly manner. Help everyone involved get acquainted.
2. See that the group is orderly before starting the meeting. After the group has settled, describe the project and activities. Have the members look over the literature.
3. Physical activities provide a good beginning. Consider a nail-driving relay contest. Select two members as team captains and have the 4-H’ers divide into two groups. One hammer to each team and two nails per person is adequate.
4. Regroup the members. Lead them to develop goals for themselves and for the group. Put special emphasis on goals for “learning” and “doing.”
5. Another brief activity might be appropriate. A repeat of the nail-driving contest or some other physical activity will keep the members interested, lively, and help develop their enthusiasm.
6. If the group is to be developed formally, lead the members into electing officers. If the members are strangers, it may be important to have “get acquainted” games and maybe a “biographical” session in order that members may learn leadership qualities of others.
7. Prepare for the next meeting. Invite a few older members to give short informational demonstrations. Have the 4-H’ers and leaders outline what they would like to do at the second session.
8. Set the date and location of the next meeting.
9. Adjourn the meeting.



## Suggestions for Demonstrations and Educational Activities

1. Demonstrate one or more ways to use trace patterns.
2. Illustrate the nomenclature of various tools, including the coping saw, framing square, crosscut and rip saws, wood rasps, multi-blade forming tools, claw hammer, nail set, and other appropriate instruments, such as mitre box or jig.
3. Demonstrate how to saw to a line with a coping saw. Include information on how to select proper blades and to set tension.
4. Show how to square to a mark for sawing.
5. Explain how to read inches and fractions of inches. A yardstick, foot rule, carpenter's tape or zigzag rule would be helpful. If appropriate, discuss the conversion of measures to the metric system.
6. Demonstrate the correct procedure for cutting to a line with a crosscut saw and a rip saw.
7. If a mitre box is available, demonstrate how to adjust the clamp and saw to a line with a mitre saw. A homemade jig may be substituted here.
8. Demonstrate how to form shapes on wood with a rasp, woodfile, or similar tool.
9. Demonstrate how to drive, set, and pull nails with a claw hammer.
10. Provide tools, materials, and equipment for members to begin to experience the procedures shown above. If the club session is brief, 4-H'ers may be instructed to practice their beginning skills at home. If this is an expanded club period, members may begin their tracing, squaring, and sawing during the meeting.

## Home Produced Visuals, Tours, and Speakers

Teach with wood product samples. Secure the help of a forester, carpenter, or wood products salesman. Prepare visuals to show:

- Variety of wood samples from your area or state to help teach wood identification
- Other wood products
- Samples of pulp products (paper types and grades)
- Samples of hardwood products
- Samples of different types of composition, paneling, fiberboard, particleboard, etc.
- Samples of different lumber sizes, species, grades
- Samples of different plywood species and grades, with stamps.

## Activities, Events, and Exhibit Ideas

The creative leader will find an almost inexhaustible source of activities, events, and exhibit ideas for the wood science program. The appendices contained within this leader's guide will provide several possibilities for your consideration.

## Recognition and Awards

4-H'ers, like everyone else, appreciate a pat on the back, a sincere "thank you," and material rewards. They like to earn ribbons, medals, trophies, certificates, savings bonds, scholarships, and other kinds of recognition. In 4-H, such opportunities abound for members, clubs and county groups.

Many people working together through common goals of 4-H make possible this recognition. Among them are parents, 4-H leaders, Extension agents, specialists, state 4-H leaders, and donors of local, state, or national awards. Their interests and personal involvement as well as financial assistance motivate 4-H'ers to achieve even greater accomplishments.

Achievement considered when selecting winners includes: member's participation and accomplishments in the respective program leadership experiences, personal development, community and civic responsibilities, and participation in other 4-H projects or activities.

Selecting and certifying winners of awards, at all levels, is the responsibility of the Cooperative Extension Service, with each state determining its selection process and dates for submitting required materials.

You can help your 4-H'ers get an early start on those all-important 4-H records by having them build a file of project pictures, news clippings, ribbons, correspondences, and other items showing their progress. These will be useful when compiling and submitting records for county and state recognition. Who knows? You may have a future national winner of an educational scholarship.

For current information on national awards that are available in the 4-H wood science program, contact your local or state 4-H office, or write to National 4-H Council, Program Services Division, 7100 Connecticut Avenue, Chevy Chase, Md. 20815.