

# 4-H Training Topics - Woodworking Wonders

## Background:

*4-H Woodworking Wonders* is an exciting, hands-on project that teaches children and youth, grades 2-12, skills necessary to create with wood. There is a **Helper's Guide** and four project guides – **Measuring Up, Level 1; Making the Cut, Level 2; Nailing It Together, Level 3; and Finishing Up -Level 4.**

## Resource:

**Measuring Up, Level 1, pages 8-9** (Key found in **Helper's Guide, page 32**)

## Materials Needed:

- Copy for each participant of the **Basic Tool Word Find, Level 1, page 9.**
- The **Tools and Equipment** Activity in this Training Topic can be done two different ways:

**Option 1** - Household tools (the tools you assemble may differ from those listed here)

**Option 2** - Use a copy of the **Tools and Equipment** handout from, **Measuring Up, Level 1, page 8.**

- Pencils
- Signs which say:
  - I am not able to drive a nail without bending it.
  - I've made a few small projects but they didn't hold together well.
  - I've moved beyond a hammer and saw – give me the power tools and I'll build something great.

## Preparation Time:

Lay tools out on one or more tables.

Write the name of each tool on an index card; write its use on a separate card.

Allow 45 minutes for preparation and set up.

## 1 Opening Activity

What to Do	What to Say	Minutes
As people arrive have them complete the <b>Basic Tool Word Find</b> . Encourage them to share their answers and also ask others for help.	While we are waiting to begin, please pick up the <b>Word Find</b> handout. Don't hesitate to share your answers or ask others for help.	4

## 2 Curriculum

What to Do	What to Say	Minutes
Have copies of <b>Woodworking Wonders, Levels 1-4</b> and the <b>Helper's Guide</b> available.	Thank you for coming to today's training on <i>Woodworking Wonders</i> . Woodworking is a complex skill. This project develops sequentially as skills are learned and practiced. Each guide also lists required and optional activities. The required activities help develop the skills necessary for successful and safe completion of the project. While these books are written for specific age groups, they could be used with youth of different ages based on abilities and experience.	3



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## 3 Introductions

What to Do	What to Say	Minutes
Post the three sentences so everyone can see them. Limit each participant introduction to no more than a minute.	It's time for introductions. Please include name, place of work and woodworking skill by selecting one of these three sentences: <ul style="list-style-type: none"> <li>• I am not able to drive a nail without bending it.</li> <li>• I've made a few small projects but they didn't hold together well.</li> <li>• I've moved beyond a hammer and saw – give me the power tools and I'll build something great.</li> </ul>	5

## 4 Doing an Activity

What to Do	What to Say	Minutes
<p>Lay the tools on one or more tables. If Option 2 (described in the Supplies section) is used, give everyone a handout. Using actual tools will make this activity more interesting and help participants understand more about the tools used in this project. If using actual tools:</p> <ul style="list-style-type: none"> <li>• Divide into groups of 3 or if the group is small (5 or less) work as a large group.</li> <li>• Shuffle the cards and pass them out to participants.</li> <li>• Ask each participant to place their card by the tool they believe it describes.</li> </ul> <p>When finished each tool should have two cards beside it – one with the name and one with the use.</p> <p>Without comment, check for accuracy and pick up any card that is not in the right place. Mix those cards up again and hand them to participants, only telling them that these particular cards were not in the right place. Repeat this until all the cards are in the proper place.</p> <p>If time permits, have participants talk about safety concerns for each tool.</p>	<p>Tools are an important part of the woodworking project. In this activity everyone will be given one (or a few depending on the number of participants) cards. The cards either name a tool or describe a use. Place the card(s) by the tool it best describes.</p>	15



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## 5 Applying the Experience

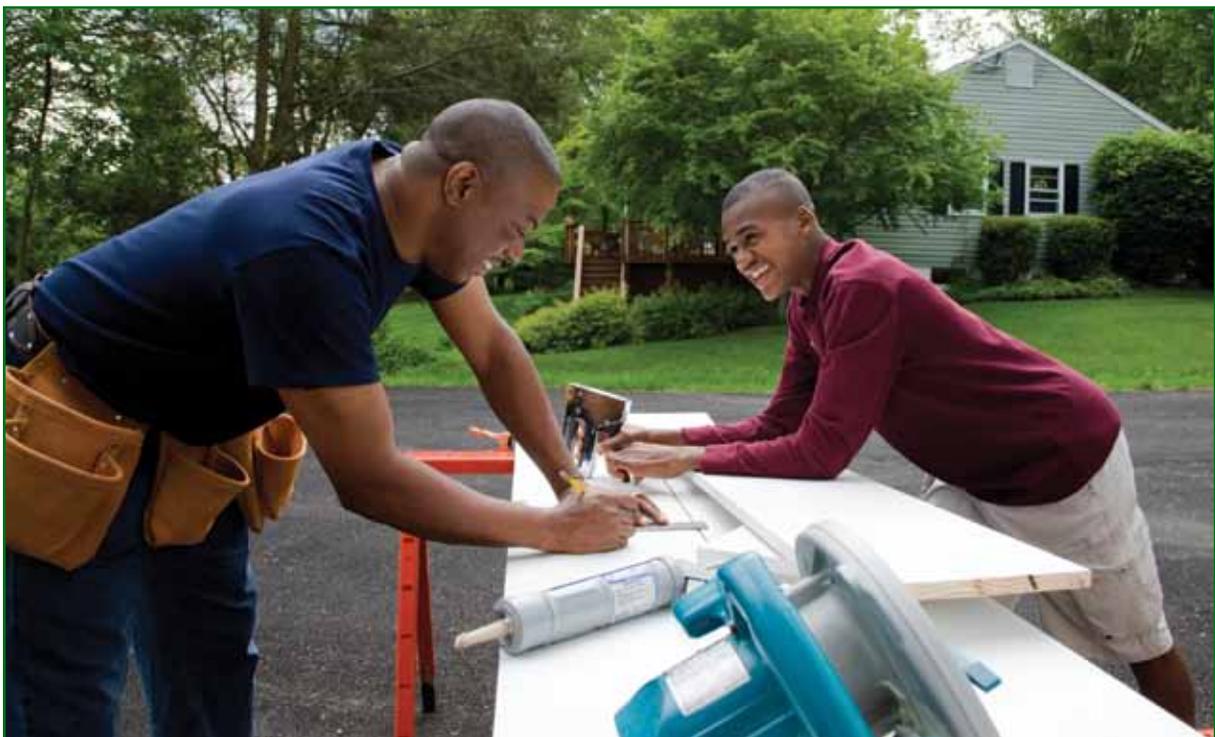
What to Do	What to Say	Minutes
Discuss this activity and how it might be applied.	Did you know all the tools and how they are used? Which tools have you used before? Were there tools that were unfamiliar? As the children/youth participate in this project, what are some decisions they will have to make about the tools they will need to use? Which tool will they use the most? How can children/youth use the skills gained in woodworking in other things that happen in the program?	3

## 6 Making a Plan

What to Do	What to Say	Minutes
Make a plan for starting the <i>Woodworking Wonders</i> project.	Now it's time to work as a group and set some dates for the woodworking project. When should the project meetings start? What ideas from this meeting can be used? Who is the adult project leader? How are safe woodworking practices going to be included in each meeting? When should another meeting be held for more planning and reflection?	5

## 7 Close

What to Do	What to Say	Minutes
Summarize and close.	This one short activity is something that can be used in program planning. It may take more time when working with children or youth, especially if the group is larger. Consider involving local woodworking enthusiasts as volunteer helpers for this project. Get ideas from the children or youth and plan about 10 activities for the project. The 4-H project materials all have lots of activities that can be turned into lesson plans and are fun for adults and children.	2



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Tool	Use
Allen or hex wrench	Insert or remove bolt or screw with hexagon-shaped slot
Brace and bit	Drill hole in wood
Carpenter's pencil	Mark or write on wood
Channel-lock pliers	Grasp and hold object without applying pressure; adjustable
Crescent wrench	Tighten or loosen nuts in variety of sizes; adjustable
Claw hammer	Drive or remove nails from wood and other materials
File	Smooth, shape, or size metal
Flat-blade screwdriver	Insert or remove screw with slot resembling minus sign (-)
Nail set	Drive small-head (finishing) nail below wood surface with hammer
Needle-nose pliers	Grasp small or hard-to-reach object; not adjustable
Open-end wrench (standard)	Tighten or loosen nut of a specific size (measured in inches)
Open-end wrench (metric)	Tighten or loosen nut of specific size (measured in millimeters)
Phillips screwdriver	Insert or remove screw with head resembling plus sign (+)
Rasp	Smooth or shape rough wood
Ratchet	Handle used with socket to tighten or loosen nut; reversible
Rubber mallet	Tap or pound object without damaging it
Slip joint pliers	Grasp object; adjustable for two sizes
Socket	Used with ratchet handle to tighten or loosen nut of specific size

