

CADETTE WOODWORKER BADGE – MEETING 2

Badge Purpose: When you've earned this badge, you'll know how to use some basic tools to make simple woodworking projects.

Activity Plan Length: 2 hours

Time	Activity	Materials Needed
5 minutes	Getting Started + Safety First <ul style="list-style-type: none"> Begin the meeting by reciting the Girl Scout Promise + Law. Review the safety guidelines before you begin working on your badge. 	<input type="checkbox"/> (Optional) Girl Scout Promise and Law poster
20 minutes	Wanted: Poster Hanger <ul style="list-style-type: none"> Learn how to use a hand saw, then practice using a saw to create a poster hanger. 	<input type="checkbox"/> Wood lath (4' x 1.5" x ¼" LWH) <input type="checkbox"/> Hand saw <input type="checkbox"/> Sandpaper <input type="checkbox"/> (Optional) paint or wood stain and rags <input type="checkbox"/> Hammer <input type="checkbox"/> Nails <input type="checkbox"/> Small eye screws (2 per girl) <input type="checkbox"/> Leather cord
85 minutes	Chairwoman of the (Wood) Board <ul style="list-style-type: none"> Put your new skills to work by building an outdoor chair. 	<input type="checkbox"/> 2 x 4 12' wood board (4) <input type="checkbox"/> HD screws (2 boxes of 125 ct) <input type="checkbox"/> 2½ inch outdoor wood screws (1 box) <input type="checkbox"/> Pocket hole jig <input type="checkbox"/> Cordless drill <input type="checkbox"/> Impact driver <input type="checkbox"/> Miter saw <input type="checkbox"/> Sander <input type="checkbox"/> Carpenter's square <input type="checkbox"/> Table saw
5 minutes	Snack Chat <ul style="list-style-type: none"> Enjoy a healthy snack and celebrate your completed project! 	<input type="checkbox"/> Healthy snack
5 minutes	Wrapping Up	<input type="checkbox"/> (Optional) Make New Friends lyrics poster



Getting Started + Safety First

Time: 5 minutes

Materials Needed: (Optional) Girl Scout Promise and Law poster

1. Welcome everyone to the meeting, recite the Girl Scout Promise and Law.
2. Before you dive into your woodworking projects, review some safety guidelines:
 - **Wear appropriate attire.** Remember that you'll be working with tools and machines that, when not used correctly, can cause a lot of harm. Don't wear loose clothing or dangly jewelry. Keep long hair tied up. Wear closed-toed shoes (hammers and flip flops don't mix well!)
 - **Wear safety equipment.** Safety glasses will protect your eyes from any flying debris or corrosive substances (like wood stain, oils, etc.). If you're going to be using a power saw or other loud equipment, wear ear muffs.
 - **Follow directions and pay attention.** The number one cause of accidents is not paying attention. Stay focused on the work that you're doing, and don't distract someone else while they're working.

NOTE: It's best to complete this badge under the supervision of someone with woodworking skills. Try your shop teacher at school, a local carpenter or contractor, or a friend or family member knowledgeable in woodworking.

Activity #1: Wanted: Poster Hanger

Time: 20 minutes

Badge Connection: Step 4 – Saw some wood

Materials Needed: Wood lath (4' x 1.5" x 1/4" LWH); hand saw; sandpaper; (optional) paint or wood stain and rags; hot glue; hammer; nails; small eye screws (2 per girl); leather cord

1. Some tips for sawing:
 - **Make sure your saw is sharp.** A sharp saw means less effort on your part to cut the wood. Just like when you're using a hammer, let your saw do most of the work.
 - **Grip and posture.** Point your forefinger along the grip to get a more accurate cut. Keep your elbow close to your body to help get a straight cut. Hold the saw at about a 45-degree angle to where you'll be cutting.
 - **Get sawing.** Start by getting a small notch going. Begin on the waste side of the cut (the part you don't want) since the saw will leave a kerf (a groove). If you start cutting on the keep side, you might end up with a piece that's just a bit shorter than you wanted. If you start on the waste side, you can always trim or sand off the excess. Use long strokes when sawing so you're using the full length of the blade.

WASTE	KEEP
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- **Secure your work.** Use clamps or vises to secure the material you're cutting so it doesn't move around as you cut.
 - **Measure twice, cut once.** After you've measured where you're going to cut your wood, check it again to make sure it's accurate. It's a lot easier and faster to double check your measurements than to cut the wood, only to realize your mistake after the fact.
2. Make a poster hanger!
 - Measure your poster. You'll want your hangers to be slightly larger than the poster you're hanging. Measure and cut your wood into four even lengths; you'll need two pieces of wood (a front and a back piece) for the bottom and two for the top. Sand the cut edges of your wood.
 - (Optional) Paint or stain your wood. Let dry completely.
 - On the back piece of the top hanger, screw in two eye screws about 1.5" from either edge.



- Get your poster and position the top two pieces and bottom two pieces onto the poster. Use a hammer to hammer in two or three nails onto the top two pieces to secure them together (the nail should go through the poster as well). Repeat the step with the bottom two pieces.
- String the leather cord through the eye screws and make a knot. Your poster is ready to be hung!

Source: Activity adapted from *A Beautiful Mess* (bit.ly/DIYposterhanger)

Activity #2: Chair(wo)man of the (Wood) Board

minutes

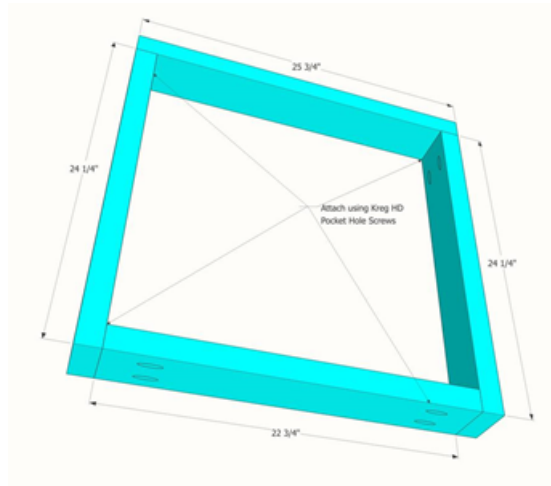
Time: 85

Badge Connection: Step 5 – Build something yourself

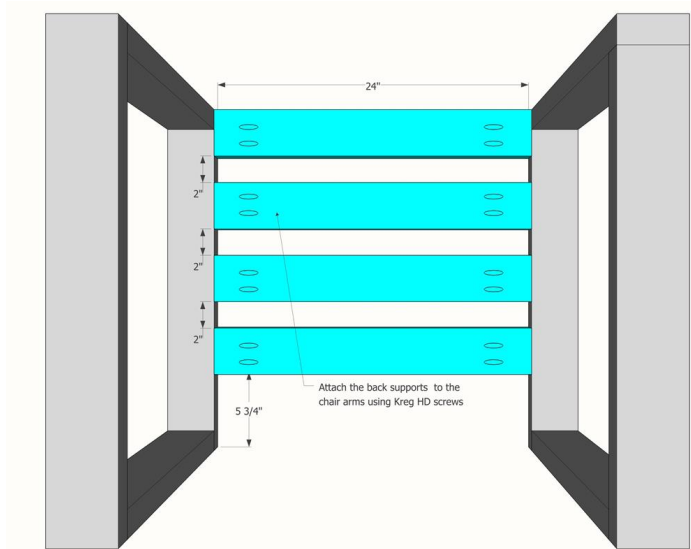
Materials Needed: 2 x 4 12' wood board (4); HD screws (2 boxes of 125 ct); 2½ inch outdoor wood screws (1 box); pocket hole jig; cordless drill; impact driver; miter saw; sander; carpenter's square; table saw

1. Now that you have some woodworking skills under your toolbelt, get assistance from the woodworker helping you on your badge to build your final project: an outdoor chair!
2. Make your cuts:
 - (4) Seat back supports: 2" x 4" x 24"
 - (4) Seat supports: 2" x 4" x 24"
 - (2) Arm boards: 2" x 4" x 25 ¾"
 - (4) Arm boards: 2" x 4" x 24 ¼"
 - (2) Arm boards: 2" x 4" x 22 ¾"
 - (2) Seat board supports: 1 ½" x 1 ¾" x 22 ¾"
 - (2) Side supports: 2" x 4" x 22 ¾"
3. Follow the steps to build your chair.

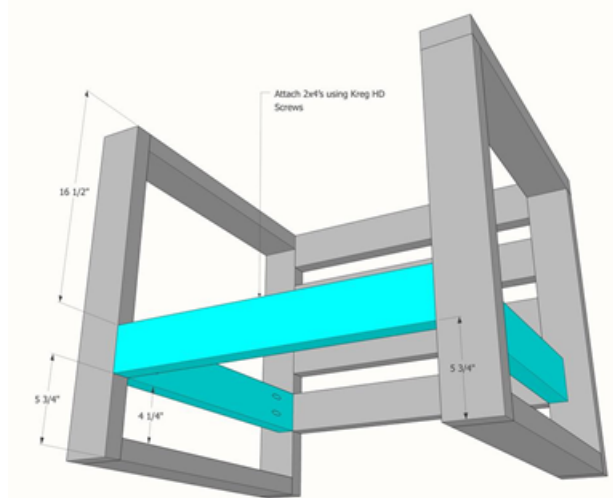
1. Build your arms. Drill the pocket holes and assemble the pieces using the HD screws.



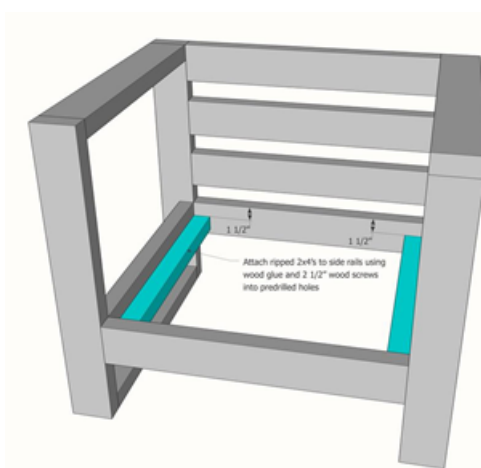
2. Attach back supports. Attach the back supports to the two arms using pocket holes and HD pocket hole screws as pictured in the diagram.



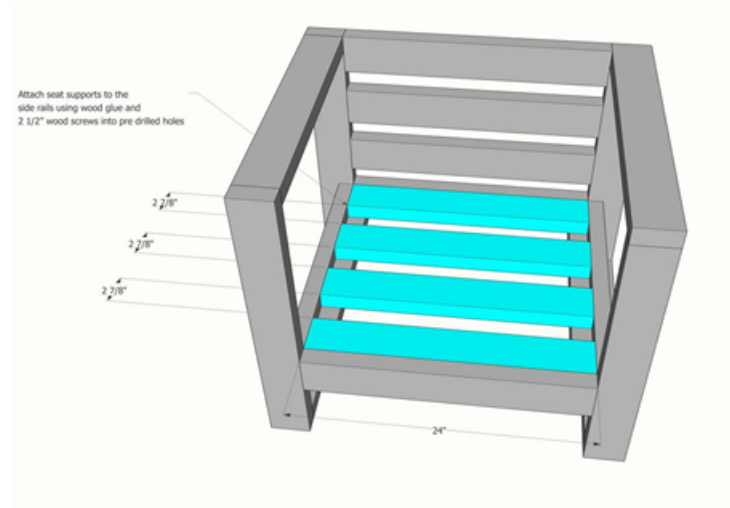
3. Attach the seat facing to the arms using HD pocket holes and HD screws, as pictured in the diagram.



4. Cut and attach the side rails. Attach using the outdoor wood screws.



5. Attach the seat supports using wood screws.



Source: Activity adapted from Kreg (bit.ly/DIYoutdoorchair)

Activity #3: Snack Chat

Time: 5 minutes

Badge Connection: Questions connect to multiple badge steps

Materials Needed: Healthy snack

1. While enjoying a healthy snack, discuss:
 - You did it! You built something entirely out of scratch using your hands. How did it feel?
 - Did you encounter any difficulties while building any of your projects? How did you troubleshoot or correct your mistakes?
 - Do you see yourself using your woodworking skills in the future?

Wrapping Up

Time: 5 minutes

Materials Needed: (Optional) Make New Friends song lyrics poster

Close the meeting by singing Make New Friends and doing a friendship circle.

More to Explore

- Field Trip Ideas:
 - Visit a lumber yard to learn about the different types of wood and which ones are best for which projects.
 - Find and take a class at your local workshop (The Minnesota Woodworkers Guild has a list of classes: www.mnwwg.org/classes.html).
- Speaker Ideas:
 - Invite a woodworker to your meeting to talk about their craft. Ask them to bring along some special hand tools that they use.



- Invite an artist who uses wood to your meeting to learn about how they incorporate wood into their art.

