



Fine
Woodworking

WOODWORKS PROJECT PLANNER: 2016-2017 BEGINNER PROJECT
SMALL BENCH/STEP STOOL



If you're looking for the perfect, beginner's project to start your woodworking career, look no further. This year Minwax® partnered with Fine Woodworking to bring you plans for this small, but classic bench. With expert plans from Fine Woodworking, you will learn woodworking basics by building this simple, yet functional bench that will make for the perfect addition to your home or apartment. You can even step up this bench's functionality and use it as a step stool! Once you finish building it, you can personalize it with Minwax® stains and finishes. Learn how to add a pop of color by applying a stain and protect the beauty of your project for years to come by using a clear protective finish.

TOOLS REQUIRED

Hand Tools

- 45-degree triangle
- Adjustable square

Power Tools

- Table saw
- Orbital sander
- Jig saw

Miscellaneous

- Tape measure
- Pencil
- Wood glue
- Pocket hole jig
- Assorted clamps
- Safety glasses
- Straight edge
- Sanding block
- Sandpaper (various grits)
- Gloves for finishing
- Good quality synthetic brush
- Clean lint free cloths
- Respirator

SHOPPING LIST

Recommended Wood: Ash or White Oak

Material	Length
7" x 3/4" Ash or Oak	16"
1 1/2" x 3/4" Ash or Oak	24"
8" x 3/4"	14"

CUTTING LIST

Quantity	Description	Thickness	Width	Length
2	Sides	3/4"	7"	8"
2	Cross Brace	3/4"	1 1/2"	12"
1	Top	3/4"	8"	14"

WOOD FINISHING PRODUCTS

Prep: Minwax® Water Based Pre-Stain Wood Conditioner

Stain: Minwax® Water Based Wood Stain, Navy Blue and Pure White

Finish: Minwax® Polycrylic® Protective Finish, Semi-Gloss

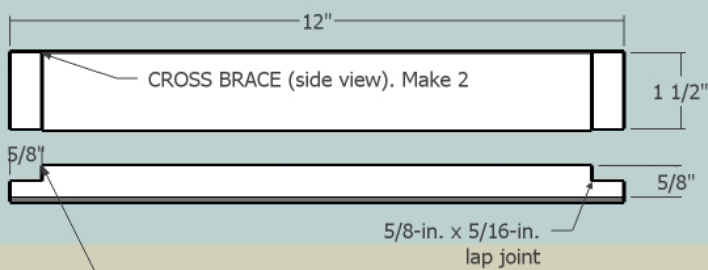
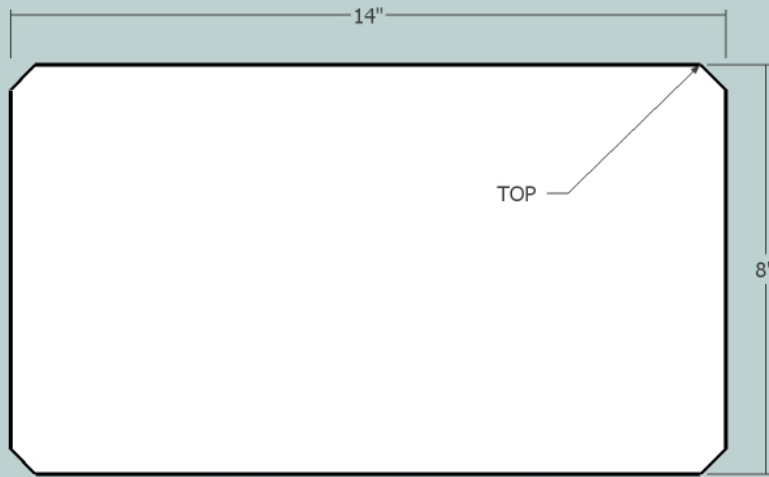
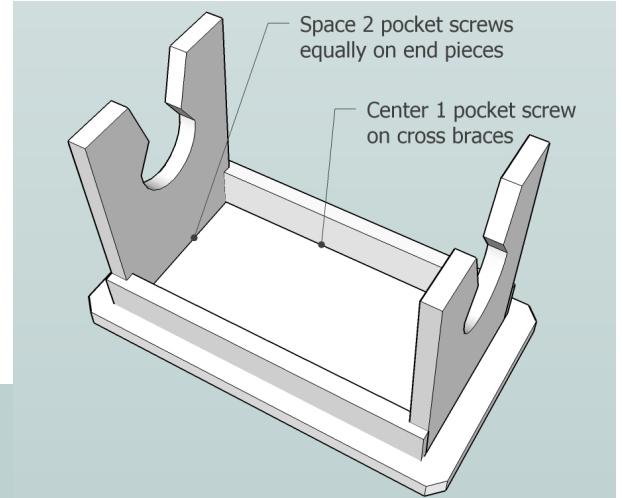
BEFORE YOU BEGIN

Good craftsmanship begins and ends with good work habits, so make the following steps part of your routine workshop practice. If you have any doubts or questions about how to proceed with a project, always discuss them with your shop instructor.

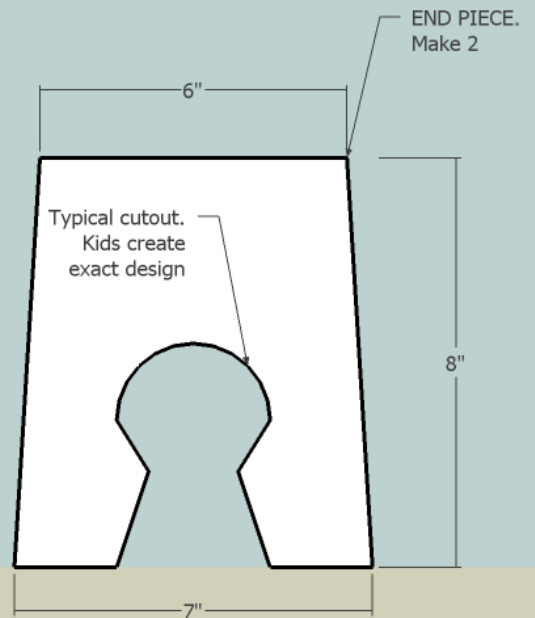
- Carefully and fully review plans and instructions before putting a tool to the project lumber.
- Work sensibly and safely. Wear safety goggles. Wear the appropriate respirator whenever making sawdust or working with thinners or other solvents.
- At the end of every work session, clean up your shop area and put away all portable tools.

CUTTING AND ASSEMBLY NOTES

1. If you can't find a piece of wood that is 8" you can glue up two pieces that equal 8".
2. After cutting the top to length, cut the corners at a 45-degree angle, approximately 1" long.
3. The sides can also be two pieces if a 7" piece is not available.
4. Cut the sides to 8", then find the center of the top and bottom. Measure 3" on either side on the top and 4" on either side on the bottom. Draw lines connecting those points. This will create the angle on the sides.
5. Before cutting the sides, layout and cut the design in the side pieces. A jig saw is probably the best choice to do this.
6. Cut the angled sides with an appropriate saw. A jig saw can work for this.
7. Cut the cross braces to 12". Cut the notches on the cross braces to overlap the side pieces.
8. Using a pocket hole jig, drill the holes that will be used to attach the top to the base.
9. Sand everything to 120 grit starting with 80 grit. Sand the edges of all surfaces to make them smooth.
10. Glue the cross pieces to the side pieces.



CROSS BRACE (top view)



STAINING AND FINISHING

Woodworker's Tip: *Though you may be tempted to cut short your sanding, preparation, and application time, don't do it. These tasks are very important steps in obtaining a high-quality finish. Remember, it is the finish, just as much as the fit and smoothness of the parts, that will have an impact on how people judge your craftsmanship. To ensure excellent results, follow the steps listed in this section and the instructions the wood finishing manufacturer puts on its products.*

FINISHING TIPS

- Test the stain and clear protective finish you are planning to use on scraps of wood. On the back of the scrap, mark the stain and finish combination and the type of wood. Allow all samples to dry thoroughly before making your final finish selection. Save your samples for quick reference on future projects.
- All stains and finishes must be allowed to dry thoroughly between coats. Remember that drying times can vary due to temperature, humidity, and other climatic conditions.
- If you have some leftover stain or finish, wipe the can rim so that stain or finish in the rim won't dry out and prevent the lid from forming a tight seal.

BEFORE YOU STAIN

Carefully sand the parts in the direction of the grain. Start with 100-grit sandpaper, proceed to 150-grit and finish with 220-grit. Remove all the sanding dust. Then proceed with the stain and finish of your choice.

RECOMMENDED STAIN AND CLEAR FINISH

Prep: Minwax® Water Based Pre-Stain Wood Conditioner

Stains: Minwax® Water Based Wood Stain, Navy Blue and Pure White

Finish: Minwax® Polycrylic® Protective Finish, Semi-Gloss

1. Before applying Minwax® Water Based Wood Stain, apply Minwax® Water Based Pre-Stain Wood Conditioner, following the directions on the can. Applying a pre-stain wood conditioner will help ensure even absorption of stain, prevent blotchiness and control the effect of grain raising. After 1 to 5 minutes, wipe off all excess conditioner using a clean, soft cloth. Wait 15 to 30 minutes, then use 220-grit or finer sandpaper to sand off any "whiskers" raised by the conditioner. Proceed to the staining within 2 hours.

2. Apply Minwax® Water-Based Wood Stain to the wood using either a synthetic bristle brush or a clean cloth. Allow stain to penetrate no longer than 3 minutes. Wipe in the direction of the grain using light to medium pressure to achieve even stain color. Allow the piece to dry for 2 hours before applying a second coat, if desired.

Woodworker's Tip: *When wiping off stain, make certain that your last wipe with the cloth goes with the grain of the wood.*

3. After allowing the piece to dry for at least 24 hours, apply Minwax® Polycrylic® Protective Finish, following the directions on the can. Stir the can contents thoroughly before starting and periodically repeat the stirring during your work session.

4. Working in a small area at a time to maintain a wet edge, apply the first coat. Work quickly and make the final strokes in each newly finished section using with-the-grain brushstrokes.

5. Allow the finish to dry a minimum of 2 hours. Then sand lightly with 220-grit or finer sandpaper wrapped around a soft backup block. Thoroughly dust off and wipe all surfaces with a cloth lightly dampened with water.

6. Repeat step 4 to apply the second and final coat. Do not sand after the final coat. Allow final coat to dry 24 hours before normal use.

PRODUCT SAFETY

For your safety and the safety of those you work with, always read the manufacturer's safety warnings, and follow them to the letter.

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

DANGER: Rags, steel wool, other waste soaked with oil based stains or clear finishes, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled metal container. Dispose of in accordance with local fire regulations.

CAUTIONS: Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

CAUTIONS: CONTAINS ALKYL PROPANOLS, ETHYLENE GLYCOL, GLYCOL ETHERS AND 1-METHYL-2-PYRROLIDINONE. CONTAINS MATERIAL THAT MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS AND MAY ADVERSELY AFFECT THE DEVELOPING FETUS BASED ON ANIMAL DATA.

VAPOR HARMFUL. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately.

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.

CONFORMS TO ASTM D-4236. Contact a physician for more health information.