T

LOWE'S Woodworkers"

Build This Changing Station

Make diaper duty more convenient with this nursery addition. PAGE 4

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8 Table and Chairs 10 Trash Can Shelter 16 Bonding Basics

Let's build something together

hange is in the air this time of year, and this issue features projects that will help you make the most of the changes in your household.

If a new family member has just arrived, consider building our Changing Station to make diaper duty more convenient.

The design features a large surface for the baby, roomy storage for supplies, and handy space for appliances.

Or perhaps your growing family needs more room for get-togethers. Our Table and Chairs set provides a perfect addition for backyard dining. And if you built our Child's Table and Chairs from the Spring/Summer issue, you're ready to tackle the adult version. This project is similar in construction, but it includes a different joinery technique that will add to your woodworking skill set.

Fall weather, as well as new babies and family visits, means more cleanup. Our Trash Can Shelter project provides an attractive storage solution with shade

and ample air circulation.

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How-To

Woodworkers.

To download project and

How-To plans such as our

Tapering Jig, visit us online at

LowesCreativeIdeas.com/

The project will help you

create tapered table legs

and other parts. It will be

available online through

November 1, 2007.

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Also featured in this issue are Skill Sets to help you build your woodworking knowledge and confidence while you build.

Please share your comments and suggestions with us at LowesCreativeIdeas.com/Woodworkers.



MELISSA BIRDSONG VICE PRESIDENT, TREND, DESIGN & BRAND LOWE'S COMPANIES INC

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CONTRIBUTORS



ideas from several new mothers and from his own experience as a grandfather. This sturdy and attractive piece offers plenty of storage and convenience.



homes and building custom cabinetry and furniture are evident in the columns he pens regularly for this magazine. In the Workshop column in this issue, Bill provides pointers on how to set up your workshop for years of enjoyment.

CHRIS HILL As the father of three boys, Chris appreciates the need for having an attractive

storage solution for his trash can-especially with five family members routinely filling it up.



What is the best way to cut latticework to size for use in outdoor projects?

Full lattice panels are unwieldy— they're as large as sheets of plywood but not as rigid. Without uniform support underneath them, they won't rest flat. Also, the overlapping wood construction of lattice can interfere with a saw base and cord due to the raised edges and irregular surfaces.

The key to cutting lattice is providing adequate support for the material as well as the portable circular saw or other tool used for cutting. You can support the lattice by laying four sacrificial 2 x 4s across two sturdy sawhorses. Make sure that the 2 x 4s are laid flat and evenly spaced.

Our Tool Guide project, featured on page 10 in the Winter 2006 issue, can provide support and a smoother traveling surface for your saw because the shoe of the circular saw rides along the flat portion of the guide rather than the irregular surface of the lattice. Adjust the saw-blade depth to allow for the thickness of the guide and latticework, and add about $\frac{1}{6}$ inch to that measurement. This will score the 2 x 4 supports without significantly weakening them.



Q I cut moulding to what I think is the right size, but I always seem to be off, particularly at mitered corners. How can I be more accurate?

Instead, leave about ¼ inch at the ends, test-fit again, and then trim in small increments to the correct length

Ignoring deviations in standard angles (few corners are true 45-degree angles!) rather than focusing on the length of the workpiece is a common mistake when working with trim. Outside corners with mitered ends tend to gap—especially when nailed tightly against a surface. Cut a pair of 1-foot-long test pieces at 45 degrees, test-fit each corner, and cut the moulding to compensate for gaps.

With the Experts at Lowe's

Ill-fitting moulding corners usually A are caused by surface irregularities. To resolve this problem, first test-fit the workpiece and mark the cut line. Don't try to get the cut exactly right the first time.

Sometimes I have difficulty when working with treated lumber. Are there any tips for handling it?

The best lumber grades generally offer more consistency, and Lowe's Top Choice lumber is developed with stringent guality specifications for this reason. But the process of pressure-treating lumber for outdoor use does introduce some factors—such as higher moisture content—that affect its behavior and characteristics.

For the best results, buy treated lumber a few weeks before use, stack it with scrap wood spacers to allow airflow between the boards, and shelter it from extreme weather conditions. This slow drying process will help reduce checking (formation of surface cracks during rapid drying). Allowing the treated lumber to dry first makes it easier to handle during projects.



Changing Station

Make diaper duty more convenient with this nursery addition.

TOOLS YOU'LL USE



his station takes diaper changing to a new level, with a spacious surface for the baby and plenty of storage below in easy-access drawers and cubbies. As an added time-saving feature, we built in space for a refrigerator and microwave so that you can store and heat bottles right in the baby's room.

Instructions:

GENERAL: Cut and label all of the parts as needed, using the Cut List as a guide and adjusting for fit.

BUILD THE FACE FRAMES

Assemble the front, back, left, and right face frames per Figure 1, using pocket hole joinery unless otherwise noted. The parts in this step are ripped from 1 x 6 and 1 x 8 stock. a. Cut a ³/₄-inch-radius guarter circle on the bottom inside corners of the (01) stiles. **b.** Attach the (01) stiles to the (02) rails.

c. Cut the (03) mid stiles to fit, and attach to the (02) rails

d. Cut and install the (04) mid rails and (05) cubby stiles.



For late-night feeding, our plan accommodates a refrigerator and a microwave, including cord access. Check out the Winter 2007 issue of Lowe's Creative Ideas for Home and Garden to see this project used as a hospitality center. e. Cut a ³/₄-inch-radius guarter circle on the bottom inside corners of the (06) end stiles. and then attach the (06) end stiles to the (07) end rails

f. Cut and attach the (08) end mid rail on the left face frame assembly.

OCONSTRUCT **4** THE CASE

a. Use both glue and brads to attach the (09) back so that it is centered and flush with the top of the inside face of the back face frame.

b. Cut a hole in the **(09)** back as shown in Figure 2 to create an opening for optional electrical access. To do this, drill a 1-inch access hole for a flush trim bit. Then remove the waste by running a router fitted with a flush trim bit around the inside edges of the cubby face frame.

c. Attach the front and back face frames to the right and left face frames. Check the assembly for square, and attach temporary bracing if necessary.

d. Use glue and 1⁵%-inch screws to attach the (10) mid partition so that it is flush with both the top of the (03) mid stile and the front of the drawer opening.

e. Use glue and brads to attach the (11) front panel to the front face frame so that it is flush with the top of the (10) mid partition.

SKILL SET

Face Frames

In general, face frames are assembled with stiles (vertical) and rails (horizontal). To assemble the face frames for this project, drill pocket holes at the ends of the (02) rails where they will join with the (01) stiles. Apply glue to the joint, and attach with pocket hole screws.



Figure 1

front and back

Figure 2

(15) oubby side (13) end panel (14) glide suppor (19) mini wa







*

f. Use glue and 1%-inch screws to attach the **(12)** floor to the bottom of the **(10)** mid partition so that it is flush with the top of the **(07)** end rail.

g. Attach the **(13)** end panel centered on the inside face of the left face frame so that its bottom edge sits $\frac{3}{4}$ inch below the top of the **(08)** end mid rail.

h. Attach the **(14)** glide support so that it is flush with the edge of the **(03)** mid stile adjacent to the drawer opening.

i. Attach the **(15)** cubby side so that it is flush with the top of the face frames and the bottom of the **(04)** mid rail.

j. Install the (16) mini floor so that it is flush with the bottom of the (15) cubby side and the top of the (08) end mid rail.

k. Attach the **(17)** cubby floor so that it is flush with the top of the **(04)** mid rail.

I. Attach the two (18) dividers to the (15) cubby side and (10) mid partition at $7\frac{1}{4}$ inches from the front face frame and at $5\frac{1}{4}$ inches from the back face frame.

m. Install the **(19)** mini panel so that it is centered over the top left opening on the back of the front face frame. **NOTE:** Skip to Step 4 if you don't plan to build the shelf.

3 (OPTIONAL)

a. Prepare the **(20)** shelf supports by drilling ¼-inch holes ½ inch deep, per the shelf support layout in Figure 2.

b. Attach the **(20)** shelf supports, as shown in Figure 2, so that they are flush with the tops of the front and back face frames and the **(10)** mid partition.

c. Cut the (21) shelf to measure % inch less than the distance between the (20) shelf supports, as well as ¼ inch less than the opening between the inside of the face frame and the (10) mid partition.

d. Cut the **(22)** nosing ³/₆ inch less than the opening of the face frame.

e. Center the (22) nosing on the front of the (21) shelf, and attach it with glue and brads.
f. Attach a (31) half round to the top edge of the (22) nosing.

4 BUILD THE TOP ASSEMBLY

a. Cut the (23) top to fit the case.

b. Cut the **(24)** long railing and the **(25)** short railing 1 inch longer than shown in the Cut List. Round over the front and back top

to attachedges using a router fitted with a %-inch(10) midroundover bit.

c. Miter cut the **(24)** long railings and the **(25)** short railings to fit around the **(23)** top, and secure them per Figure 3.

d. Cut and attach (31) half rounds to the front and sides of the top assembly with both glue

and sides of the top assembly with both glu

	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)
RC	ONT AND BACK	FACE FRA	MES	
1	stiles	4	(8-foot-long) 1 x 6	¾ x 2¼ x 31¼
2	rails	4	(8-foot-long) 1 x 6	¾ x 2¼ x 36
3	mid stiles	2	(8-foot-long) 1 x 6	¾ x 2¼ x 25¾
4	mid rails	2	(8-foot-long) 1 x 6	³ / ₄ x 2 ¹ / ₄ x 17 ³ / ₄
5	cubby stiles	2	(8-foot-long) 1 x 6	³ / ₄ × 2 ¹ / ₄ × 7 ¹ / ₂
NI	FACE FRAME	S		
;	end stiles	4	1 x 8	¾ x 1½ x 31¼
7	end rails	2	1 x 8	¾ x 2¼ x 21
;	end mid rail	1	1 x 8	¾ x 2¼ x 21
A	SE			
	back	1	¼-inch plywood	¼ x 30 x 39
)	mid partition	1	¾-inch plywood	³ ⁄ ₄ x 23 ³ ⁄ ₄ x 28
L	front panel	1	¼-inch plywood	¼ x 19 x 30
	floor	1	¾-inch plywood	³ ⁄ ₄ x 19 ³ ⁄ ₄ x 23 ¹ ⁄ ₂
	end panel	1	¼-inch plywood	1/4 x 171/2 x 233/4
	glide support	1	¾-inch plywood	¾ x 16 x 23¾
	cubby side	1	¾-inch plywood	¾ x 12 x 23¾
	mini floor	1	¾-inch plywood	³ ⁄ ₄ x 13 x 23 ³ ⁄ ₄
	cubby floor	1	¾-inch plywood	³ ⁄ ₄ x 5½ x 23¾
	dividers	2	¾-inch plywood	³ ⁄ ₄ x 5 ¹ ⁄ ₂ x 9 ³ ⁄ ₄
	mini panel	1	¼-inch plywood	¼ x 11¼ x 13
	shelf supports	4	1 x 8	¾ x 2¼ x 20
E	LF			
	shelf	1	¾-inch plywood	¾ x 18¾ x 215⁄8
	nosing	1	1 x 8	¾ x 1½ x 205⁄8
)I	?			
	top	1	¾-inch plywood	¾ x 25½ x 40½
	long railings	2	(8-foot-long) 1 x 4	¾ x 3 x 40½**
	short railings	2	(6-foot-long) 1 x 4	¾ x 3 x 25½**
R/	AWERS			
	drawer sides	6	½ x 4	½ x 3½ x 20
	drawer ends	6	½ x 4	½ x 3½ x 15¾
	drawer bottoms	3	¼-inch plywood	¼ x 16¼ x 19½
	drawer faces	3	(6-foot-long) 1 x 6	¾ x 5¼ x 175⁄8
RI	М			
)	quarter rounds	3	moulding	¹¹ / ₁₆ x ¹¹ / ₁₆ x 96
	half rounds	3	moulding	³ / ₈ x ¹¹ / ₁₆ x 96

and brads. Miter cut the ends of the front piece, and then square cut the backs of the side pieces.

5 BUILD THREE DRAWERS

The width of each drawer assembly is 1 inch

shorter than the drawer opening to allow for the drawer slides.

a. Cut a ¼-inch by ¼-inch rabbet along the bottom of the inside face of each (**26**) drawer side and (**27**) drawer end.

b. Attach pairs of **(26)** drawer sides to pairs of **(27)** drawer ends (see Figure 4).

c. Check each drawer assembly for square, and attach the **(28)** drawer bottom using glue and brads.

d. Lay the case assembly on its back, and attach half of the drawer slide inside each drawer opening per the manufacturer's instructions, making sure the drawer slides are flush with the inside of the face frame. Attach the other half of each drawer slide flush with the front of the drawer assemblies. Finally, insert the drawer assemblies into the drawer openings.

e. The width of each (29) drawer face should be ½ inch less than the width of the drawer opening. The height of the (29) drawer face should equal the height of the total drawer opening minus ¼ inch and divided by 3. Measure for and cut the (29) drawer faces,

Figure 3 (20) top (20) long rating (20) dravae side ----(20) dravae side ----(20) dravae side ----(20) dravae side ----(20) dravae side -----(20) dravae side -----(20) dravae side -----(20) dravae side -----(20) dravae side ------(20) dravae side ------(20) haff round





and then test-fit them on the drawer assemblies, ensuring a $\rlap{kee}{1}$ -inch clearance around

the perimeter.

Figure 4).

Figure 5).

f. Miter cut and attach (31) half rounds to the perimeter of each (29) drawer face (see

g. Apply a piece of carpet tape to the front of each drawer box. Press each (**29**) drawer face into place. **NOTE:** You'll find it helpful to cut several ½-inch scrap-wood spacers that you can use to align the (**29**) drawer faces in the opening. Then pull out the entire drawer assembly, and secure the (**29**) drawer face by driving 1½-inch screws through the (**27**) drawer end into the back of the (**29**) drawer face.

6 APPLY FINISHING TOUCHES

a. Miter cut and attach **(30)** quarter rounds around the perimeters of the panels (see

b. For the appliances, drill 1½-inch holes for the cords through both the **(10)** mid partition and the **(15)** cubby side into the optional electrical access compartment.



c. Remove the drawers from the assembly. Fill all nail holes with stainable wood filler, and sand. Prime, and apply the first coat of paint as desired.

d. Drill pilot holes and attach nail-on furniture glides to the bottoms of the (01) stiles.
e. Attach the top assembly to the case using glue and brads. Apply a second coat of paint, let dry, and install the drawer pulls.
f. Install a four-outlet circuit breaker electrical box if desired, attaching it to the face of the rear (18) divider.

g. Install the optional shelf or appliances, and add a safety strap for the baby.

Lowe's List

PROJECT #WFall071

LUMBER*

□ 5 (4-foot-long) ½ x 4s, poplar
🗆 1 (6-foot-long) 1 x 4, poplar
🗆 2 (8-foot-long) 1 x 4s, poplar
🗆 1 (6-foot-long) 1 x 6, poplar
🗆 2 (8-foot-long) 1 x 6s, poplar
🗆 1 (8-foot-long) 1 x 8, poplar
□ 1 (48- x 96-inch) sheet of ¼-inch birch plywood
\Box 1 (48- x 96-inch) sheet of ¾-inch birch plywood
□ 3 (8-foot-long) pieces of ¾- x ¼-inch half-round moulding
□ 3 (8-foot-long) pieces of ½-inch quarter-round moulding
HARDWARE & SUPPLIES
□ 1 box (1¼-inch) pocket hole screws, fine thread
□ 1 box (1½-inch) screws
□ 1 box (#17 x 1-inch) wire brads
\Box 3 pairs of (20-inch) drawer slides
🗆 1 (4-outlet) circuit breaker
□ 1 package shelf clips
□ 1 package nail-on furniture glides
□ 3 drawer pulls
🗆 carpet tape
🗆 paintbrush (or roller)
□ stainable wood filler
🗆 wood glue (Titebond III)

□ 1 quart Valspar Interior Latex High Hiding Primer

□ 1 quart Valspar Ultra Premium, Burnt Tile 6011-2, semi-gloss

*Availability varies by market.

SKILL LEVEL: 🚸 🚸

Table and Chairs



TOOLS YOU'LL USE



CLAMPS

#10 COUNTERSINK BIT

pend pleasant afternoons and evenings dining on vour own handcrafted table and chairs set. With their simple construction, the table and chairs are sturdy, yet handsome, and they are certain to weather the elements

Instructions:

GENERAL: Cut and label parts as needed, using the Cut List as a guide and adjusting for fit.

Table Instructions

PREPARE THE

Cut the parts for this step ½ inch longer than specified in the Cut List. You'll trim them to length after assembly. Be sure to plane the boards to the same thickness. a. Using a router fitted with a 1/4inch slot-cutting bit, cut a ⁵/16inch-deep groove centered on one long edge of each (01) top board and (03) breadboard. **b.** With the same bit, cut a ⁵/16-

inch-deep groove into one of the long edges of one (02) end board, and a ¼-inch tongue on one of the long edges of the other (02) end board.

c. Fit your router with a ¹/₄-inch rabbeting bit, and use it to cut a ¼-inch-thick by ¼-inch-deep tongue on the uncut long edge of each (01) top board.

d. Test-fit and glue the (01) top boards and the (02) end boards together as shown in Figure 1. Then clamp the top/end board assembly, and secure with ⁵%inch galvanized staples. Allow the alue to dry.

e. Working from both centerlines, trim the top/end board assembly to measure 37½ inches long by 41½ inches wide.

To build the chairs, you'll find the Cut List, how-to web instructions, and detailed illustrations online at LowesCreativeIdeas.com/ Woodworkers.



the entire length.

Woodworkers.

hole screws.

the inside face. Download our

plan for a Tapering Jig online at

LowesCreativeIdeas.com/

attaching the top assembly.

Figure 2 (05) skirt board (06) corner brace (04) leg board

f. Fit a router with a ¹/₄-inch rabbeting bit to cut a ¼-inch-thick tongue along the 41 ½-inch edge of the top/end board assembly. g. Attach the (03) breadboards to the assembly using glue and ⁵/₈-inch galvanized staples **h.** Sand the top assembly flat,

and round over the perimeter edges using a router fitted with a ¹/₈-inch roundover bit

O BUILD THE **L** TABLE BASE

a. Glue and clamp two (04) leg boards together to create each

Cut List for one table

#	PART NAME	Q ΤΥ.	MATERIAL	SIZE (in inches)
TAE	BLETOP			
01	top boards	11	1 x 4	³ ⁄ ₄ x 3½ x 37½
02	end boards	2	1 x 4	³ ⁄ ₄ x 3 ¹ ⁄ ₂ x 37 ¹ ⁄ ₂
03	breadboards	2	1 x 4	³ ⁄ ₄ x 2 ¹ ⁄ ₄ x 41 ¹ ⁄ ₂
TAE	BLE LEGS AND	SKIRT		
04	leg boards	8	2 x 4	1½ x 3 x 28¾
05	skirt boards	4	1 x 4	³ / ₄ x 3 ¹ / ₄ x 29 ¹ / ₂
06	corner braces	4	1 x 4	³ ⁄ ₄ x 3 ¹ ⁄ ₄ x 16 ³ ⁄ ₄ **
**\/	aura lanath fram lana n	oint to long noi		

Measure length from long point to long poi



The Wood Post FALL 2007

SAW WITH MITER BOX)



f. To center the table assemblies for attachment, draw diagonals from corner to corner on the underside of the tabletop assembly. Align the corners of the base assembly with these lines, and attach the tabletop assembly to the base assembly with pocket hole screws.

O APPLY \mathbf{O} a finish

a. Fill all holes, and sand the assemblies smooth

b. To create the distressed or antique look like we did for our project, heavily sand the typical wear areas, such as the edges of the table and seats, as well as the lower portions of the legs. c. Apply a dark paint, and then let it drv.

d. Paint over the first coat with a lighter color. After the second coat has dried, sand the lighter paint to expose the darker color underneath it.

e. First drill pilot holes, and then attach nail-on furniture glides to the bottom of all chair and table legs.

Lowe's List

for one table and four chairs PROJECT #WFall072

LUMBER*

□ 21 (8-foot-long) 1 x 4s

□ 4 (8-foot-long) 2 x 4s

□ 4 (8-foot-long) 2 x 6s

HARDWARE & SUPPLIES

□ 1 box (2¹/2-inch) Phillips II pressure-treated screws

 \Box 1 package 1⁵/₈-inch screws

□ 1 box (1¹/₄-inch) Kreg pocket hole screws, coarse thread

□ 1 package (5/8-inch) galvanized stanles

□ 5 packages (¾-inch) nail-on furniture glides

 \Box paintbrush (or roller)

□ stainable wood filler

□ wood glue rated for exterior use (Titebond III)

 \Box 1 gallon white Valspar House & Trim Primer

□ 1 quart Valspar Ultra Premium, Aged Pine 6011-5, semi-gloss

🗆 1 quart Valspar Ultra Premium, Swim 5006-8A, semi-gloss

*Availability varies by market—cedar and redwood are appropriate for this project.

SKILL SET

Tongue and Groove Joinery



This technique often is used to assemble tabletops and chair seats. Using a router fitted with a slot-cutting bit, cut a groove centered on the long edge of one board. Use a router with a rabbeting bit to cut a tongue on the long edge of a second board, which will fit into the grooved edge of the first. Test-fit pieces to ensure a snug fit. Adjust if necessary, and fasten the parts together with glue and the appropriate-size fasteners.

leg. After the glue has dried, rip each of the legs to measure 3 inches by 3 inches square along **b.** The table legs are tapered on both bottom inside faces. Begin 2 inches from the outside corner of the leg, tapering 6 inches up

c. Drill pocket holes at each end of the (05) skirt boards, plus additional evenly spaced holes along the top inside face. Draw arrows on both sides of the (05) skirt boards to indicate the direction of the pocket holes for

d. Attach the (05) skirt boards to the legs using glue and pocket hole screws. Check for square. e. Scribe to fit, miter cut, and attach the (06) corner braces to the leg/skirt assembly (per Figure 2) using glue and pocket

SKILL LEVEL: 🕸 🚸

Trash Can Shelter

Store it in style with this attractive solution.



TOOLS YOU'LL USE



et's face it. Trash cans are not attractive. And hiding them behind your house or in the garage can be inconvenient at trash pickup time. Our solution: Store your trash can in a strategic location, in a shelter that's easy on the eyes.

Instructions:

GENERAL: Cut and label parts as needed, using the Cut List as a guide and adjusting for fit. Our flip-top trash can measures 46 inches high, 36 inches deep, and 26 inches wide. Measure the dimensions of your trash can to adjust your shelter size as needed, allowing for the height of the opened lid.

BUILD **THE FRAME**

a. Assemble four pairs of (01) studs using glue and pocket hole screws to make the corner assemblies (see Figure 1).

b. The bottom plate assembly is U-shaped with mitered corners. Attach two (02) long plates to a (03) short plate using glue and pocket hole screws.

c. Repeat Step 1b for the four-cornered rectangular top plate assembly (see Figure 1). d. Attach the top and bottom plate assemblies to the corner assemblies using glue and 1¼-inch screws.

e. Attach the remaining (01) studs using glue and 1¼-inch screws.

O BUILD **THE ROOF**

a. Cut the (04) rafters per the Figure 2 detail **b.** Use glue and pocket hole screws to attach the (04) rafters to the top plate assembly, flush with the ends and centered front to back. c. Attach the (05) roof panels to the (04) rafters using glue and 4d galvanized finishing nails, and then caulk the joint of the two (05) roof panels.

d. Resaw the (06) ridge boards to a thickness of ¾ inch, and bevel one long edge of each to 14 degrees.

e. Attach one of the (06) ridge boards with glue and 4d galvanized finishing nails. Caulk the beveled edge. Using glue and 4d galvanized finishing nails, attach the second (06) ridge board.



• ATTACH THE LATTICE **J**AND CORNER BOARDS

NOTE: For tips on cutting lattice panels, see The Pros Know on page 3.

a. Scribe to fit and cut the lattice panels to size.

b. Attach the (07) side panels and the (08) back panel to the frame assembly using glue and 4d galvanized finishing nails. (Refer to Figure 2.)

c. Resaw the (09) corner boards to ³/₋inch thick. Attach them using glue and 4d galvanized finishing nails.

4 ATTACH THE FILLER STRIPS

a. Cut **(10)** filler strips to fill the distance from the edges of the (09) corner boards to the door opening minus ³/₄ inch (see Figure 2).



Cut List

#	PART NAME	QUANTITY	MATERIAL	SIZE (in inches)
01	studs	13	1 x 4	¾ x 3½ x 82½
02	long plates	4	1 x 4	³⁄₄ x 31⁄₂ x 47
03	short plates	3	1 x 4	³ ⁄ ₄ x 3 ¹ ⁄ ₂ x 39
04	rafters	3	1 x 8	¾ x 7⅓ x 42
05	roof panels	2	plywood	¹¹ / ₃₂ x 22 x 48
06	ridge boards	2	1 x 4	³⁄8 x 1½ x 48
07	side panels	2	lattice	⁵⁄ ₁₆ x 47 x 84
80	back panel	1	lattice	⁵⁄ ₁₆ x 39⁵⁄ ₈ x 84
09	corner boards	8	1 x 4	³⁄8 x 1½ x 84
10	filler strips	2	plywood	¹¹ / ₃₂ x 2 ¹ / ₈ x 84**
11	door panel	1	plywood	¹¹ / ₃₂ x 33 x 83 ¹ / ₄ **
12	stiles	2	1 x 4	³ ⁄ ₄ x 3 ¹ ⁄ ₂ x 81 ³ ⁄ ₄ **
13	rails	2	1 x 4	³ / ₄ x 3 ¹ / ₂ x 23 ³ / ₄ **
14	long X brace	1	1 x 4	³ ⁄ ₄ x 3 ¹ ⁄ ₂ x 78 ⁷ ⁄ ₁₆ **
15	short X braces	2	1 x 4	³ / ₄ x 3 ¹ / ₂ x 36 ³ / ₁₆ **

wire brads.

5 BUILD AND HANG THE DOOR

NOTE: The width of the (11) door panel equals the width between the (10) filler strips minus $\frac{1}{2}$ inch. The height equals the distance from the bottom of the (04) rafter to the bottom of the lower plate assembly mi-

nus ¾ inch. a. Lay the (11) door panel face down on a flat work surface, and mark a ³/₄-inch margin around the perimeter. Label one long edge "hinge side."







b. Attach the (10) filler strips using glue and

b. Assemble the (12) stiles and (13) rails using glue and pocket hole screws, and label the hinge side.

c. Mark a centerline along the length of the (14) long X brace. Place it under the frame assembly with the centerline intersecting the opposing inside corners, beginning at the bottom corner on the hinge side.

d. Mark for the corners of the frame assembly, and miter the (14) long X brace to fit. Attach using glue and pocket hole screws. e. Mark. miter. and attach the (15) short X braces as in Steps 5c and 5d.

f. Attach the X brace assembly to the (11) door panel using glue and 1-inch pocket hole screws.

g. Install the hinges and the barrel bolt. h. Mount the door onto the shelter opening.

APPLY b A FINISH

a. Fill all holes with stainable wood filler. sand, and paint with a solid-color stain.

Lowe's List

PROJECT #WFall073

LUMBER*

- □ 25 (8-foot-long) 1 x 6s
- □ 1 (12-foot-long) 1 x 4

□ 1 (12-foot-long) 1 x 8

□ 2 (48- x 96-inch) sheets of ¹¹/₃₂-inch exterior plywood

 \Box 3 (48- x 96-inch) sheets of $\frac{3}{4}$ -inch lattice

HARDWARE & SUPPLIES

 \Box 1 box 4d galvanized finishing nails

□ 1 box (1¼-inch) Kreg pocket hole screws, coarse thread

□ 1 box (1¼-inch) exterior-rated wood screws

□ 1 box (1-inch) Kreg pocket hole screws, coarse thread

- \Box 1 box (#17 x 1-inch) galvanized wire brads
- □ 1 barrel bolt
- \Box 3 (2½-inch) zinc broad loose pin hinges
- □ paintbrush (or roller)
- □ stainable wood filler
- □ wood glue rated for exterior use (Titebond III)
- □ caulk

□ 1 gallon Cabot O.V.T. Solid Color Acrylic Stain in Cape Cod Gray

*Availability varies by market—treated southern vellow pine. cedar, and redwood are appropriate for this project.

tools make project assembly a snap. Foundations

(1)

Good To Know

The pneumatic tool you

use needs to match the

pressure capacity of

your air compressor.

oodworking joinery doesn't have to be a labor-intensive task if you're armed with the right power tools. Drill/drivers, brad nailers, and Kreg pocket hole jigs have revolutionized professional and home workshops. These tools pack a powerful punch with their speed, versatility, and lightweight, compact designs, Here, we highlight some of the top performers so that you can select the best for your needs when you're ready to start shopping.

Nailers

ightweight, easy to use, and efficient, pneumatic nailers are increasingly popular in home and professional workshops. These time- and energy-saving tools allow you to complete more projects in less time.

Be sure to select a nailer that suits your needs. For example, you don't need a framing nailer if your primary use will be attaching ³/₄inch stock. Versatility also is important—the nailer you choose should be able to handle fasteners of varying lengths.

Hitachi 1¼-inch 18gauge brad nailer kit (#243851) Lightweight at only

2 pounds, this nailer has a 100nail capacity and can drive 18gauge nails from ½ to 1¼ inches. It also features a sequential-fire mode and a drive-depth dial. A visual reload indicator warns when nail quantities are low.

Bostitch 16-gauge pneumatic finish nailer kit (#64875) Housed in lightweight magnesium, this model drives 16-gauge nails from 1 to 2½ inches and allows the user to adjust drive depth. The nailer operates at 70 to 100 pounds per square inch (psi) and has a sequential trigger.

4 Hitacni 1-1-1 cordless drill/driver kit (#182091) This drill/driver is compact and lightweight at 4 pounds. It also has a one-touch knob that controls the twospeed transmission, allowing you to choose between 0 to 400 rpm and 0 to 1,200 rpm. With 300 inch/pounds of torque, this drill/driver can handle the toughest jobs.

Drill/Drivers

hese tools are indispensable to woodworkers because they provide the necessary torque for drilling holes and driving screws.

Purchase the best drill/driver you can afford with the appropriate revolutions per minute (rpm) rating for your needs. Consider buying a cordless drill/driver—they're powerful, portable, and fit comfortably in your hand.

3 Firestorm 14.4-volt cordless drill/driver kit (#29359) With SmartSelect Technology, this drill/driver adjusts to optimal power and speed once you have selected the application. The two-speed gearbox, which has a variable speed trigger, is designed for hightorgue screwdriving and high-speed drilling. You can choose between 0 to 350 rpm and 0 to 1,400 rpm with 175 inch/pounds of torque. The ³/₄-inch keyless chuck allows for quick, easy bit changes.





Hitachi 14.4-volt ¾-inch

5 Firestorm 18-volt cordless drill/driver

(#23106) This drill/driver has the same gearbox as the 14.4volt model (above) but offers more torgue at 440 inch/pounds. The fast-drive chuck allows the user to drill a hole and drive a screw without changing bits between tasks.



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BOSTITCH

2

(3)

ASTALISTIC 14.4V



6 Hitachi 18-volt cordless ½-inch drill/driver kit (#182087) Weighing in at 4.4 pounds, this drill/driver offers lightweight handling with a compact design. The two-speed transmission allows for a choice between 0 to 400 rpm and 0 to 1,200 rpm. The motor on this drill/driver also packs a little more punch with a hefty 400 inch/pounds of torque.

Selecter. Kreg Pocket **Hole Jigs** relative newcomer to

7

*

the woodworking scene. the Kreg pocket hole jig offers speed, simplicity, and long-lasting strong joints. Pocket hole joinery is commonly used in the projects that appear in this magazine.

F7 Kreg Jig R3 (#255535) Designed for woodworkers and do-it-yourselfers, the Kreg Jig R3 is a great bet for quick project assembly. Its compact design features nine position settings that allow you to create wood joints up to 1½ inches thick. The kit also includes a clamp adapter, step drill bit, a 6-inch driver bit, and sample screws and plugs.



Setting Up Your Shop

Follow these tips to create a safe, comfortable woodworking environment. Setting up a woodworking shop can be a lifelong adventure, so consider these features as the perfect foundation for a fun, productive workspace.

1 Create Space

If you have the option, aim for plenty of natural light (south-facing windows are best). Your workshop also should have at least one doorway that is 4 feet or wider and a ceiling that is 8 to 10 feet high to accommodate plywood sheets, long boards, and equipment.

2 Add Light

Installing ceiling-mounted fluorescent tube fixtures is one lighting option for your shop. Recessed lights offer an energy-efficient alternative—space canister fixtures no more than 6 feet apart, and use compact fluorescent bulbs, such as the ENERGY STAR® labeled Bright Effects 15-watt reflector bulb (#80424). When possible, position your workbench and stationary tools in a location where light comes from at least two directions.

3 Provide Power

Consider upgrading your electrical wiring to allow you to use several pieces of equipment at the same time. If you're inexperienced with wiring, consult an electrician to determine the right setup for your shop. To ensure that your tools can reach the power supplies, consider purchasing an extension such as the Bayco 30-foot Retractable Tri-Tap cord reel (#203376). This equipment can be mounted on a wall or ceiling, offering extended reach and space-saving storage.

4 Dust Up

Invest in equipment such as the **Delta 1HP Single Stage** dust collector (#60056) for vacuuming dust and shavings from tools. In warmer conditions, ventilate by opening doors and windows, and use a fan to move dust particles out of breathing space more quickly.

5 Store Supplies

With all your new tools and equipment, you'll need some storage to keep work surfaces clear for projects. The six-drawer rolling tool cabinet (#34473; shown at far right) and the Kobalt five-drawer tool chest (#33959; shown at right) offer ample space for any woodworking shop.



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PUT IT TOGETHER

Bonding Basics

Stick to these techniques for successful holding power.

nowing the right adhesive to use and the best way to apply it can solidify your hard work into a project that stands the test of time. Follow these tips for better bonding.

Choose the proper glue.

For most woodworking projects, yellow glue (aliphatic resin) is a solid choice. Compared to the white polyvinyl acetate used in grade-school classrooms, yellow glue resists water, heat, and other solvents more effectively. It also has quicker tack time and better long-term holding power. Exteriorgrade formulas, such as Titebond II and Titebond III, provide extra protection for outdoor use.

Read the label.

Arm yourself with information to ensure a strong bond. Most adhesives have material restrictions, minimum temperature requirements, suggested open and clamping times, and other guidelines. For the best results, be sure you're using fresh glue.

Prep and apply.

Make sure you clean your workpieces so that they are smooth and free of debris and chemical residues, which can interfere with the bonding process. Before gluing, be sure to test-fit joints. Use a plastic or scrapwood spreader to distribute yellow glue on mating surfaces, ensuring that there is a small bead of glue spread evenly along the joints.

Clamp evenly.

Use scrap blocks and clamping cauls to distribute force from a small clamp jaw to a larger workpiece area. This step—along with applying enough pressure to close the joints—helps prevent misalignment and illfitting pieces. Always leave clamps on for the recommended minimum set time unless you're also using screws or nails to secure the glue joints.

Remove residue.

Cleanup varies depending on the chosen adhesive and woodworker preference.

Some folks immediately wipe excess glue from workpieces with a damp cloth. Others will let the glue cure for an hour or more before scraping off beaded adhesive with a sharp chisel. Regardless of the process you choose, be sure to remove all residue before staining or applying any other type of finish to a project.

