

built-in BOOKNOOK



Imost every home could benefit from additional storage, more seating, and an influx of extra style. This built-in book nook delivers all three. The project starts with a broad bench seat that offers a comfortable place to kick back and relax while you read under the warm glow of built-in puck lights overhead. Underneath, you'll find a serious amount of storage space. Two tall bookcases that flank the bench are the perfect place for books, of course, but also for displaying your favorite collectibles.

Even a relatively bare room offered plenty of information about building the book nook. The painted woodwork and beaded paneling offered styling cues that help the book nook design blend in. An electrical outlet and cold-air return needed to be accommodated in the project design.

PLAN YOUR PROJECT

TO SUIT THE SPACE

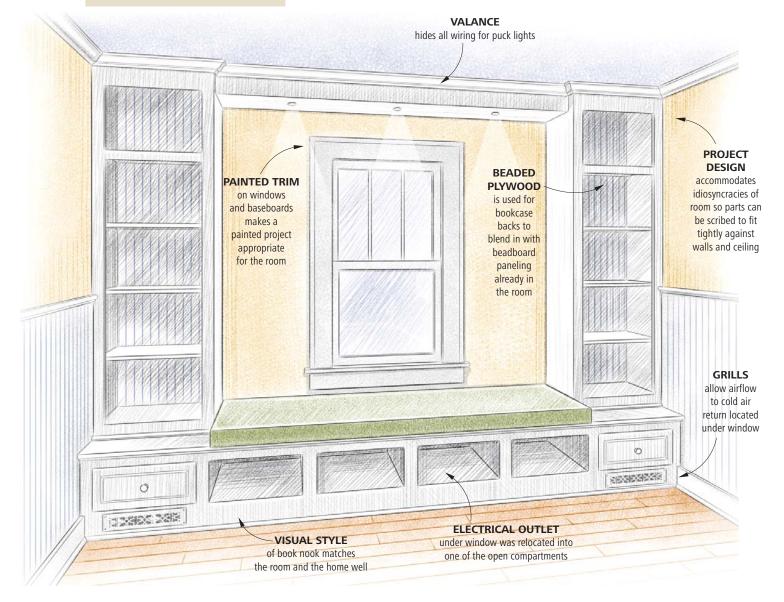
All projects require planning before getting underway. That's no secret. But to get an integrated, seamless look with a built-in, the planning process is especially important.

Build to Fit — Obviously, you need to make sure the project will *fit* the room where it will be installed. That means you'll need to thoroughly survey the location and record all the critical measurements, as shown on page 13.

Build To Suit — Equally important with a built-in, though, is making the project *complement* the room. To do that, you need to pay close attention to the stylistic elements of the room *(Photo, left, and Illustration, below)*.

In this room, the woodwork is painted, so we painted the project, as well. We also echoed the room's beadboard paneling by using beadboard for the backs of the bookcases. Plus, we removed paneling behind the book nook to make sure it would look built *in*, not tacked *on*.

Results May Vary — This all means you're likely to build your book nook differently than ours. The measurements will almost certainly be different (our wall was 11-feet, 3" wide and the ceiling, at 98", is higher than normal). And you may want to alter the style, as well. In spite of the inevitable changes, however, this project will remain simple to build.



LIGHTED COMPARTMENT in top section of each bookcase **CROWN MOLDING** wraps bookcases and provides added valance to hide gaps at ceiling display area **BOOKCASE SIDES** and provide a finished look are built extra-wide on visible TI side so they can be scribed to fit tightly against the wall **PUCK LIGHTS** are low-voltage m units for easy installation **FACE FRAMES** 9 cover edges of plywood bookcases **VALANCE** III connects the tall cases to tie the book nook together and provides space for lighting and wiring **COVE MOLDING** provides smooth, THE **CLEATS** seamless transition made from 2x2s secure between bookcases, valance to wall and **BOOKCASES** seat panels, and to bookcases are made from plywood lower face frame with simple joinery, fixed shelves, and solid-wood face frames **SEAT PANELS** start out oversize, then get scribed along back edge and end to match wallcontours for a gap-free fit **GRILLS** cover holes in face frame to allow air flow to a cold air return located on wall behind book nook **FACE FRAME** is built easily with butt joints and pocket screws, then applied to bench seat bases after installation **BENCH SEAT BASE DRAWERS** is built in two units add enclosed storage to simplify construction under bookcases and installation

A BENCH SEAT STARTS IT OFF

The foundation for the book nook is this broad bench seat. With its ample seating and built-in storage, the bench seat would make a great project on its own.

The seat starts off with two plywood base units (built separately to simplify installation) that are assembled with dado and rabbet joints. A face frame encloses the front, and a plywood seat panel tops it off (Base Assembly, below).

To determine the length of each unit, measure the wall it will rest against, and then subtract an inch for clearance (see page 12). Then divide this

number in half.

Once you've determined how long to make each base unit, cut the base tops (A), ends (B), and dividers (C) to size from ³/₄" plywood.

Before moving on, cut a notch in each divider. These will receive a cleat that's used to secure each base unit to the wall (Cleat Detail, below).

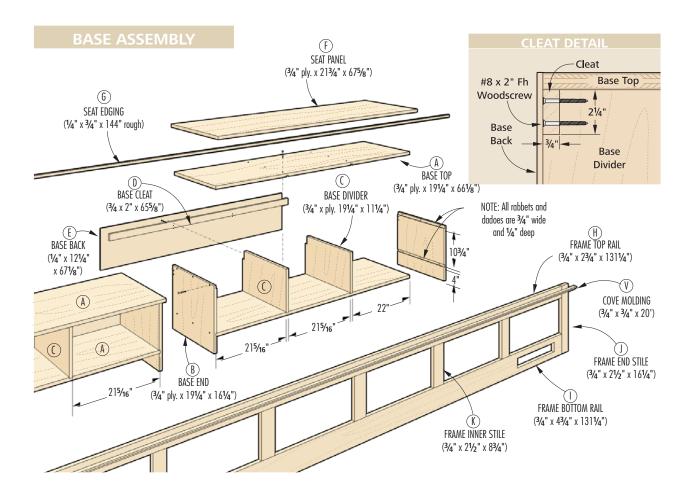
Dado for Secure Joints — Now it's time to lay out a series of dadoes in the base top and bottom, as well as a dado and rabbet in each base end. These are shown in the *Base Assembly* below.

You'll notice that the dadoes that house the dividers aren't spaced equally. This is because of the bookcases that get added later. As the *Photo* at left shows, those bookcases sit directly above the outermost compartments in the bench seat. So I wanted the width of these outer openings in the seat to match the width of the openings in the bookcases.

After laying out the position of the first divider dado, I located the dado for the other divider midway on the remaining length of the base unit.

With all the dado locations laid out, you can cut or rout the dadoes and rabbets. Then drill counterbored shank





holes for the screws that will hold each base together.

Next, you can assemble the bases. As you do this, be sure to orient the pieces correctly — with the wider compartments at the *outer* ends, and the notches in the dividers toward the *back*.

Now, turn your attention to the backs of the base units. First, add base cleats (D). These get attached by screws driven in from the base ends, as well as through the cleats into the dividers. Finally, cut back panels (E) to fit from ¹/₄" hardboard, and then attach each back with 1" brads.

Seat Panels Top It Off — The base units are topped by a pair of plywood seat panels (F) made from $^{3}/_{4}$ " plywood. Each starts out $^{1}/_{2}$ " longer and $2^{1}/_{4}$ " wider than the assembled base unit it sits on.

At the front, this overhang allows the seat panel to extend past the face frame and molding that get added when the bench seat is installed. At the back and outside edges, it gives an extra ¹/₂" so you can scribe the seat to match the walls. For now, cut the seat panels to these oversize dimensions, and then set them aside.

You can also make the seat edging (G) now. It's just a length of ¹/₄"-thick solid stock that gets applied later to conceal the edge of the plywood seat panels. The *Sidebar* at right shows an easy way to make the edging.

I cut my edging from a single piece of 12-ft. long poplar. If you can't find a board long enough, you can make the edging in two pieces. That's one of the benefits of a painted project: You can simply fill the seam before painting, and nobody will never know.

In either case, set the seat panel edging aside for now, too. It doesn't

get applied until the book nook is installed.

Best Face Forward — The final element of the bench seat is a face frame that covers the front of both base units. This frame is made up of long rails connected by stiles that align with the dividers in the base units. When installed, these stiles will conceal the dividers in the base units.

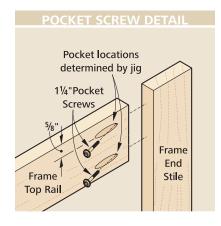
The face frame couldn't be simpler to build. Butt joints and pocket screws hold it together (See below).

Like the seat panels, the face frame is also built longer than the distance between the walls it spans — ¹/₂", in this case. The reason for oversizing remains the same here, too: You can scribe and trim the face frame to fit tightly against the walls on both ends.

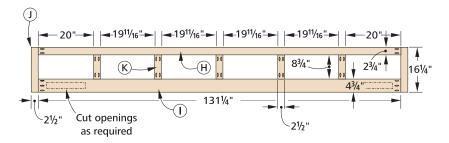
After calculating how long to make your face frame, cut the top rail (H), bottom rail (I), end stiles (J), and middle stiles (K) to size.

Once again, I was lucky enough to find 12-ft. long boards for my rails. If you can't find stock that's long enough, you can make two-piece rails and join them together with pocket screws.

Now bore the pocket holes in the stiles, align them with the rails, and then screw the face frame together. Set it aside until it's time for installation.



FACE FRAME



MOLDING MADE EASY

The long seat edging is just a simple 1/4" strip dressed up with rounded edges. That means the edging is simple to make, but one trick makes it even easier.

Rather than trying to round over the edges of a thin strip, you'll get better results by rounding the edges of a wide board first, and then ripping the ¹/₄"-thick edging free. It's a threestep process at the router table and table saw, as shown in the *Photos* below.



1] After ripping one edge of a long board straight, rout a $^{1}/_{8}$ " roundover along the edge.



2] Flip the board end-for-end, and round over the second edge using the same router-table setup.



3] To complete the seat edging, move to the table saw and rip the rounded edge free of the board.



BOOKCASES COME NEXT

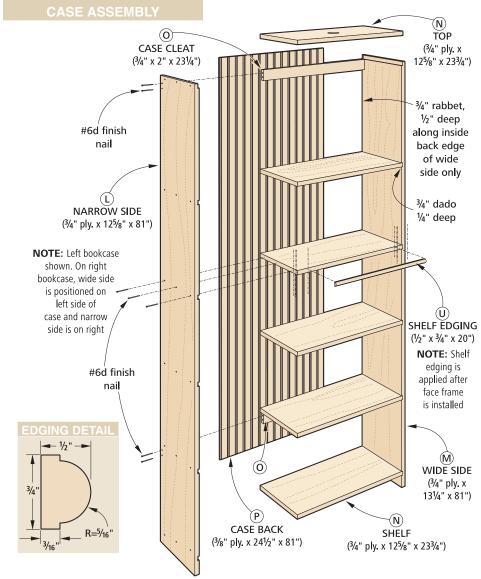
The tall bookcases are built almost like the base units. Each has a plywood case made up of two sides that are connected by shelves that fit into shallow dadoes. A face frame covers the front of the plywood case, while edging covers the plies on the front edge of the shelves (Case Assembly, below).

There is one very notable thing about the way the bookcases are built. Each has one side that's wider than the other, as shown in the *Case Parts View*, below right. You'll see why if you look at the *Photo* at left. One side of each cabinet is visible. That means it likely

will need to be scribed to fit tightly against the back wall. To allow for this, the side is extra-wide and extends beyond the back of the case (Wide Side Rabbet Detail). The other side of the cabinet is hidden. That means it doesn't have to be scribed or built extra-wide.

As you might guess by now, we also accounted for scribing with the face frames. Each is ¹/₄" wider than the case it attaches to. The overhang sits toward the outside of each case where it abuts the side wall of the room.

Build the Bookcases — With all this in mind, now start construction.



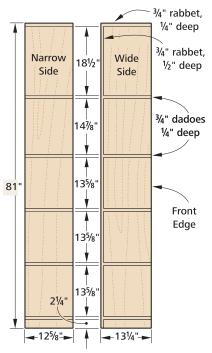
Rather than cut all the sides at once, I started with two 26" \times 81" blanks made from $^{3}/_{4}$ " plywood. Each blank is wide enough to produce one narrow side (L) and one wide side (M).

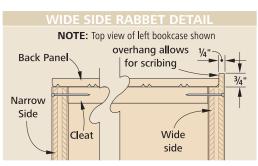
The next step is to cut five dadoes and a rabbet across each blank (Case Parts View). These receive the shelves, and cutting them across a wide blank ensures that, when assembled, the shelves in each case will align exactly.

You can cut the dadoes and rabbet in a couple of ways. I used my table saw, which has a 52" rip fence — which offers plenty of capacity to cut the dadoes. If your saw lacks that much capacity, you can use a router and straight bit guided by a straightedge.

CASE PARTS VIEW

(Left Bookcase Sides Shown)





That done, rip each blank to make a narrow side (L) that's $12^5/8$ " wide, and a wide side (M) that measures $13^1/4$ ".

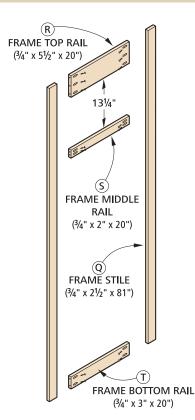
Run the Rabbets— Now lay out a rabbet along the back edge of each wide side. The rabbet serves two purposes. It decreases the amount of material you'll need to trim when scribing, and it provides a notch for the back panel to rest in (Wide Side Rabbet Detail).

As you lay out the rabbet, remember this: On the left-hand bookcase, the wide side will go on the *right*. On the right-hand bookcase, the wide side goes on the *left*. Mark each side, so you don't accidentally rabbet the wrong edge.

Bring on the Shelves — With the case sides complete, you can cut the shelves and tops (N) to size. In my bookcases, the upper compartment is a lighted display area. So before assembling the cases, I bored a $2^{1}/8^{11}$ hole centered in the two tops for the puck lights to fit into.

After that, the bookcases can be

FACE FRAME ASSEMBLY



assembled. I attached the shelves using glue and 6d finish nails instead of screws so that I didn't have large holes to fill in the visible (wide) sides before painting.

Next, cut two case cleats (O) for each case and nail them to the case sides. You'll drive screws through these cleats to secure the bookcases to the wall.

The case backs (P) come next. To echo the look of the beadboard paneling in the room, I made these backs from ³/₈"-thick beaded plywood (I used Ply-Bead from Georgia Pacific; <u>Plytanium.com</u>). The backs get tacked on with 1" brads.

Fit the Face Frames — A solid-wood face frame comes next for each case (Face Frame Assembly, below left). To make them, cut frame stiles (Q), as well as top (R), middle (S), and bottom (T) rails to size from solid stock. Then assemble the frames with pocket screws.

You can glue and nail the face frames to the cases now. Make sure when doing so that each face frame sits flush with the wide side of each case and overhangs the side which will sit against the wall.

Add Shelf Edging — All that's left now is to add edging (U) to the three shelves that aren't covered by the face frame. This edging features a beaded roundover profile (Edging Detail) made using the same three-step technique that was used for the seat panel edging (Molding Made Easy, page 5). Start with extra-long edging pieces, then cut each to fit the shelves. Glue and nails hold the edging in place without clamps.

A Good Time to Paint — With the bookcases assembled, most of the major construction is complete for this project. But before you move on to installation, I advise painting most of the parts. That way, you can take your time without making a big mess in the room where the book nook will be installed. See page 16 for tips that will ensure a great paint job.

I primed and painted everything but the seat panels. Those were left bare because fitting the bookcases means sliding them in and out of place a few times, which could scratch up the paint.

Screw the base

units together and

make sure they're

straight across the

as needed.

front. Then level the

assembly using shims

INSTALL THEBENCH SEAT AND BOOKCASES

Before you install the book nook, you may need to do a little prep work in the room. For example, I removed the baseboard behind and beside the bench seat to ensure that I could tuck the back of the base units tight against the wall.

At the same time, I stripped off the beadboard on the back wall where the project would go. To me, that made the book nook truly look built-in rather than tacked on. This, of course, led to a

bit of plaster repair.

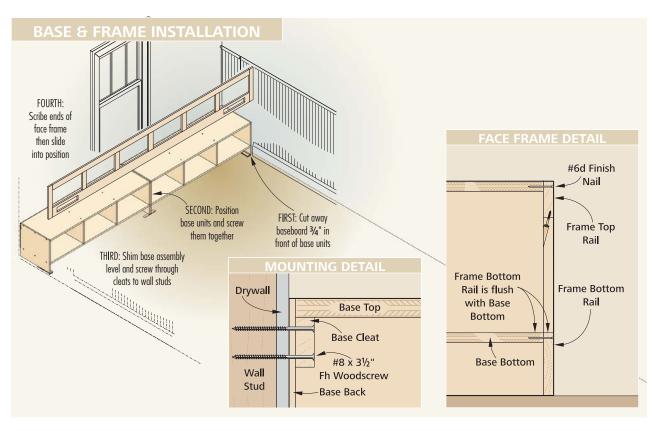
Then I decided to go ahead and repaint the room, so it would fully match the book nook. These types of tasks are often called "might-as-wells." They take time, but really do make a built-in project look better.

Bring in the Bench Seat — Start installation by positioning the seat bases (Base & Frame Installation, below) They should align without problem, but be sure to double-check that the tops are flush and that the front edge of the assembly is straight (Photo, left). That done, level the base units (Inset).

Next, shim between the back of the base units and wall if necessary, and then drive $\#10 \times 3^{1}/_{2}$ " screws through the base cleat and into wall studs in at least four locations (two in each base unit).

Get Framed — Before attaching the face frame, scribe and trim the end stiles to match the walls. Using a template simplifies this process (see page 15). Align the face frame, and secure it with 6d finish nails (Face Frame Detail).

Have a Seat — Next up are the seat panels (Add Seat & Trim, page 9). Position one panel so it overhangs the face frame consistently. Now scribe and trim the back edge and outer end of the panel, using the techniques on page 14. Remember, once fitted, the panel should overhang the face frame by 1".



Once this first panel fits, clamp it in place. Then fit the second panel the same way (*Photo, below*). After that, nail the seat panels to the base units.

Slide In the Bookcases — Fitting the bookcases comes next (Bookcases Top It Off, right) Be prepared to test fit them a couple of times to get the best fit.

Start by making sure each case sits square on the bench seat (*Photo, bottom*). Then scribe the face frame, remove the case, and trim it to fit. Refit the case, and then scribe and trim the case side. Now install the bookcase (*Case Cleat Detail*).

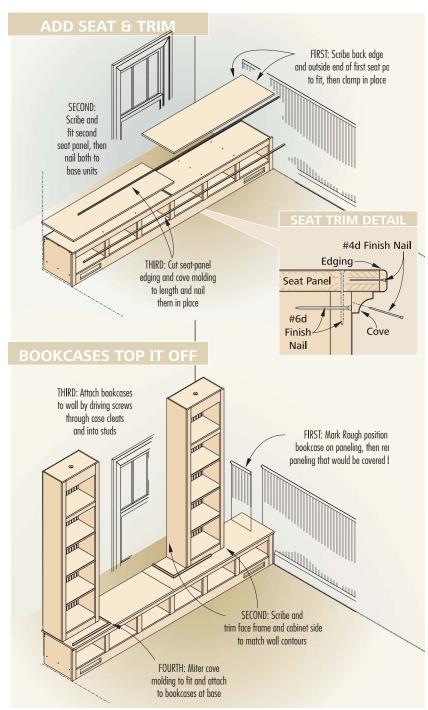
Finally, glue and nail on the seat edging (Seat Trim Detail). A piece of ³/₄" cove molding (V) goes below. More cove wraps around the bookcases (Case Molding Detail). Now you can paint these parts.

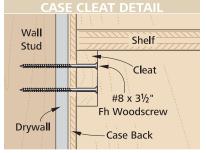


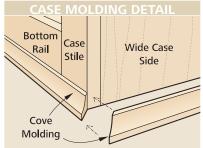
Each seat panel gets trimmed to fit the wall on the back and outside end. The panels should meet tightly at the center.



Use a framing square to make sure each tall case is positioned properly before scribing it and before installing it.









Deep drawers add a lot of enclosed storage for blankets, games, or just about anything. Like the rest of the project, they're attractive yet very easy to build.

ADD DRAWERS & A VALANCE

With the bench seat and bookcases installed, I decided to add some enclosed storage to the project with a pair of drawers (*Photo, left*). You could choose to leave all the compartments open, or build even more drawers. It all depends on what suits your needs.

Each drawer is just a simple box covered by a false front with a decorative molding (*Drawer Assembly*).

Start by cutting the drawer fronts and backs (W) and sides (X) to size from ¹/₂" hardwood. Then rabbet the fronts and backs (*Drawer Joinery Detail*), and cut grooves for the plywood bottoms (Y) before assembling the boxes.

The false fronts (Z) come next. They're cut to size from $^{3}/_{4}$ "-thick poplar. Then you can add the drawer trim (AA). It's made using the techniques on page 5, mitered to length, and secured with glue and 1" brads.

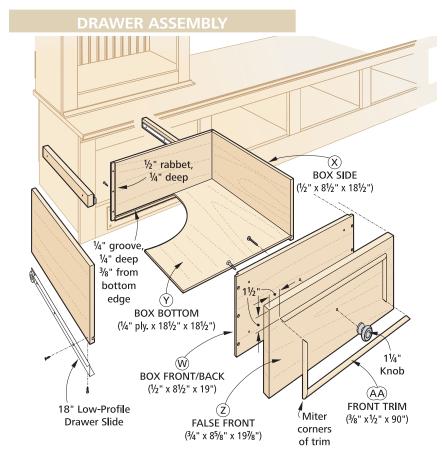
Spacers Position the Slides — Before you can install the drawer slides, you'll need to "build out" the bench seat compartments so that the slides fit flush with the edges of the face-frame stiles. Spacers (BB) accomplish this (*Drawer Slide Detail*). Plane or rip each spacer to thickness, and then mount it to the divider.

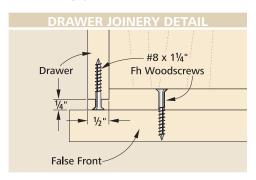
From there, you can install the drawer slides, and then slip the drawer boxes into position. Finally, align and mount the false fronts.

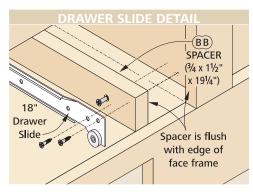
Top It Off with a Valance — The finishing touch for the book nook is a valance. It spans between the bookcases to tie the project together, and provides a place to mount lights and run wiring (Valance Assembly, page 11). Consisting of just two pieces, it's one of the easiest parts of this project to build.

Construction begins by cutting the valance bottom (CC) from ³/₄" plywood. It starts out oversize. If you want to add lighting, bore holes for puck lights.

The extra-long valance face (DD) comes next. It gets a full-length groove to receive the valance bottom, and roundovers on the lower edge (Valance Mounting Detail, page 11).







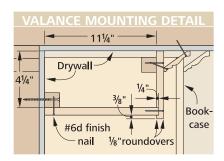
After making the valance parts, paint them, but don't assemble them yet.

Cleats Hold the Valance — A pair of simple cleats (EE) secure the valance. After cutting them to length from 2x2s, screw one to the wall, and the other to the bookcases (Valance Mounting Detail).

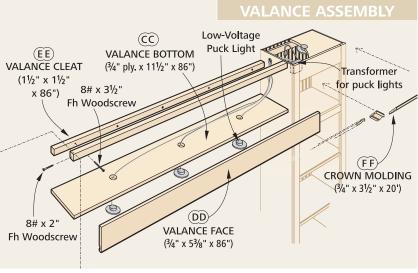
Finally, scribe the valance bottom and front to fit, nail them together, and then slip the assembly into place after routing all wires into the case (*Photo, above right*).

The Crowning Touch — To hide any gaps around the ceiling, wrap the valance and the bookcases with crown molding (FF). It just gets mitered to fit, and then nailed in place.

With the book nook complete, it's time to kick back and relax — with a good book, of course.







MATERIAL LIST

	Part	Qty	Size	Material	Par	t	Qty	Size	Material	
BENCH SEAT				S	FRAME MIDDLE RAILS	2	3/4" x 2" x 20"	Poplar		
Α	BASE TOPS/BOTTOMS	4	³ / ₄ " x 19 ¹ / ₄ " x 66 ¹ / ₈ "	Birch Plywood	T	FRAME BOTTOM RAILS	5 2	3/4" x 3" x 20"	Poplar	
В	BASE ENDS	4	3/4" x 191/4" x 161/4"	Birch Plywood	U	SHELF EDGING	6	½" x ¾" x 20"	Poplar	
C	BASE DIVIDERS	4	3/4" x 191/4" x 111/4"	Birch Plywood	V	COVE MOLDING	1	3/4" x 3/4" x 20'	Pine	
D	BASE CLEATS	2	3/4" x 2" x 655/8"	Poplar	DRA	AWERS				
Ε	BASE BACKS	2	1⁄4" x 121⁄4" x 671⁄8"	Hardboard	W	BOX FRONTS/BACKS	4	½" x 8½" x 19"	Poplar	
F	SEAT PANELS	2	3/4" x 213/4" x 675/8"	Birch Plywood	Χ	BOX SIDES	4	½" x 8½" x 18½"	Poplar	
G	SEAT EDGING	2	1/4" x 3/4" x 144"	Poplar	Υ	BOX BOTTOMS	4	1/4" x 181/2" x 181/2"	Plywood	
Н	FRAME TOP RAIL	1	3/4" x 23/4" x 1311/4"	Poplar	Z	FALSE FRONTS	2	3/4" x 85/8" x 19//8"	Poplar	
1	FRAME BOTTOM RAIL	. 1	3/4" x 43/4" x 1311/4"	Poplar	AA	FRONT TRIM	1	3/8" x 1/2" x 90"	Poplar	
J	FRAME END STILES	2	3/4" x 21/2" x 161/4"	Poplar	BB	DRAWER SPACERS	4	3/4" x 11/2" x 191/4"	Poplar	
K	FRAME INNER STILES	5	³ / ₄ " x 2 ¹ / ₂ " x 8 ³ / ₄ "	Poplar	VAL	ANCE/CROWN				
BOOKCASES					CC	VALANCE BOTTOM	1	3/4" x 111/2" x 86"	Birch Plywood	
L	NARROW SIDES	2	3/4" x 125/8" x 81"	Birch Plywood	DD	VALANCE FACE	1	3/4" x 53/8" x 86"	Poplar	
M	WIDE SIDES	2	³ / ₄ " x 13 ¹ / ₄ " x 81"	Birch Plywood	EE	VALANCE CLEATS	2	1½" x 1½" x 86"	Pine	
N	SHELVES/TOPS	12	3/4" x 125/8" x 233/4"	Birch Plywood	FF	CROWN MOLDING	1	3/4" x 31/2" x 20'	Pine	
0	CASE CLEATS	4	3/4" x 2" x 231/4"	Poplar	• (64) #8 x 2" Fh Woodscrews		• (1 lb.) 1" Wire Brads			
Р	CASE BACKS	2	3/8" x 241/2" x 81"	Beaded Ply.				• *(2) Pr. 18" Slid	• *(2) Pr. 18" Slides (#34580)	
Q	FRAME STILES	4	3/4" x 21/2" x 81"	Poplar				• *(2) Puck Light Sets (#39748:		
R	FRAME TOP RAILS	2	3/4" x 51/2" x 20"	Poplar				3-Light)		

*Items available from Rockler.com; 800/279-4441

BUILD BETTER BUILT-INS

The secret to great-looking built-ins is getting a perfect fit in a less-than-perfect space. These simple tips show you how.

uilt-in cabinets can transform a room. In fact, they often become *the* focal point of the entire space. So to look their best, built-ins have to fit into the space perfectly — like a hand in a glove.

But getting that perfect fit can be frustrating. After all, no matter how carefully you build the project, it will likely have to fit into a less-thanperfect room. That's because floors

and ceilings aren't always level, walls may not be plumb, and corners aren't exactly square.

Actually, building a built-in that fits isn't as tough as you'd think. You just have to know how built-in cabinets are designed, as well as how to survey the space the cabinet will occupy so you can come up with correct cabinet sizing.

BUILT-IN DESIGN BASICS

Built-in cabinets have something to hide:

Behind the form-fitting facade, they aren't built to exactly fit the space at all.

Start Small — That's right, a built-in cabinet actually starts out *smaller* than the space it will occupy (Built-In Cabinet Design, left). That allows the cabinet to slip easily into its space. Of course, this means there will be gaps around the cabinet that will have to be filled in.

Overhangs Fill the Gaps — The solution for concealing those gaps is to add pieces that overhang the cabinet and span the gaps. Later, these pieces get trimmed to fit tightly against the surfaces they abut. (This is called scribing, and is discussed starting on page 14.)

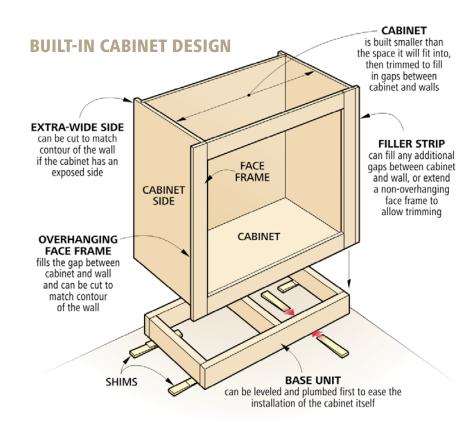
Face Frames & Filler Strips — At the front of the cabinet, a common way to hide the gaps is with a face frame. You can also extend a face frame to make it overhang by gluing on filler strips.

Wide Sides also Hide — If the sides of the cabinet will show, build them extra wide, so they extend beyond the back panel. Again, the excess will span any gap between the cabinet and wall.

Add On to Fill In — Sometimes it's impractical to build the gap fillers into the cabinet. In those cases, add filler strips or molding. In the book nook, for example, we used crown molding to cover the gap at the ceiling.

TAKE A SITE SURVEY

Before you can build your cabinet, you'll



have to figure out what size to make it. This is done with a site survey.

Measurements are an important part of a site survey, of course, but the process also reveals the "problem" areas in a room. The process is explained below, and in the *Illustrations* at right.

As you work through the site survey, you'll want to record all the results so 5ea where the built-in will be located (Fig. 1, right). To do this right, you'll need to check the distances from wall to wall and floor to ceiling in several places.

Check Level & Plumb——Next, use a long level (4' or longer is ideal), and check to see if the walls are plumb and the floor and ceiling are level (*Fig. 2*). This will show whether the gaps between the cabinet and walls will be consistent from top to bottom, or tapered.

See if It's Square — Next, check the corners of the room with a framing square. This shows whether the cabinet can be tucked into a corner, or whether it will need to be pushed out a bit to fit.

Look for Bows—The last step in the site survey is checking the flatness of the walls (Fig. 3). Even if they appear flat, they may bow in or out or be rippled. Knowing this will give an indication of how easy or complicated your scribing cuts later will be.

SIZE THE CABINET

With the site survey complete, you can size the cabinet. First, find the *smallest* width and height measurements, and subtract about 1". Build your cabinet to these undersize dimensions.

Once you know how large the cabinet will be, compare its size to the *largest* width and height measurements. The differences tell you where you'll need to add overhangs, as well as how wide they will need to be. And you'll know whether those overhangs are consistent or if they vary by examining if and where the walls are out of plumb.

SURVEY THE SITE

1] MEASURE SPACE

A Determine the rough location of the cabinet in relation to the walls by snapping a chalk line.

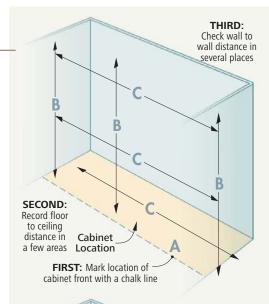
- Measure from floor to ceiling on both ends of the room. Record the measurements as you go.
- Next, measure from wall to wall in several areas, and write down any differences in your numbers.

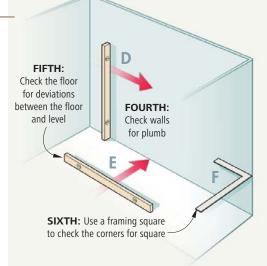
2] PLUMB & LEVEL

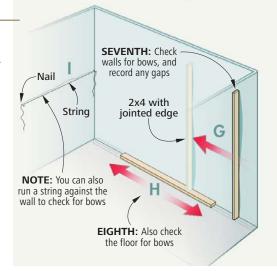
- Use a long level to check the walls for plumb. Measure and record any deviations.
- Check the floor with the level in a similar fashion. Again, write down deviations.
- In the corners, hold a framing square against the walls to check for square.

3] CHECK FOR BOWS

- Last, check the flatness of the walls using a long straightedge. A jointed 2x4 works well.
- Also check the ceiling and floor as necessary, and write down any discrepancies you find.
- Another way to check for bows is to run a string along the wall and look for gaps.







SCRIBE FOR **SUCCESS**

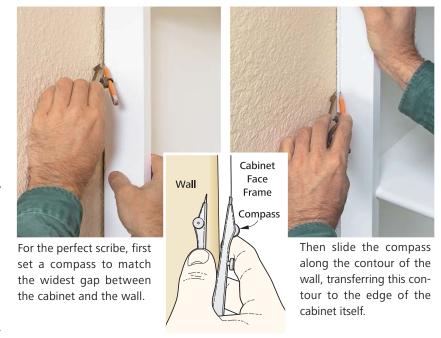
Building a cabinet to account for irregularities in the walls is a good start to a great-looking built-in project. Now, to get a professional-looking installation, you'll need to scribe the cabinet and cut it to fit those irregularities.

Scribing is the relatively simple process of marking the contour of the wall onto the part of the cabinet that will fit against it. This is accomplished by butting the cabinet against the wall, and then running a pencil along the wall to scribe a line on the edge of the part. This part is then cut to the scribe line to fit against the wall.

STEP #1: LEVEL THE PLAYING FIELD

Before you can scribe or cut, though, it's critical that the cabinet is resting level and plumb. But attempting to get a large cabinet level and plumb can often be back-breaking work, to say the least.

So I recommend mounting the cabinet above a base unit, which you can level using shims. This base unit can be a simple toe kick or a low cabinet.

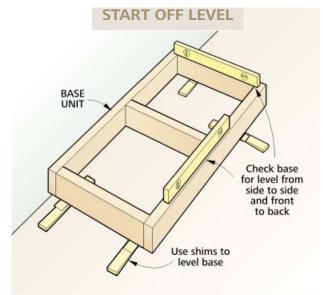


An overview of how to level a base unit is shown in *Start Off Level* below left. First, set the base on the floor, and check to see if it sits level. Then, insert shims, and check it for level again. Make adjustments until it's resting level. Once it is, secure the base unit to the wall. Then, trim off the exposed portion of the shims.

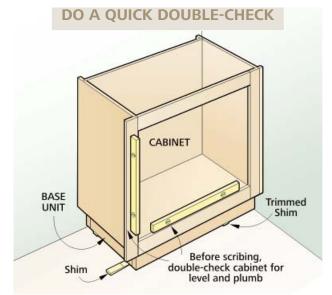
Double-Check the Cabinet— -With the base installed, you can set your cabinet in place above it. But before you begin to scribe lines onto the cabinet, it's a good idea to do a quick doublecheck on the cabinet itself (*Illustration*, below right).

STEP #2: SCRIBE FOR SUCCESS

You're now ready to scribe the lines on the cabinet. As simple as scribing is, there are a few tips that will make it easier and more accurate. One tip is to scribe using a compass. The nice thing about a compass is that it's easily adjustable, so you can set it to the widest gap between the cabinet and the wall.



Leveling a base with shims is a process of trial and error. Insert or remove shims and check it until it sits just right.



Before you scribe, make sure the cabinet is sitting plumb and level. A quick double-check is all that it takes.

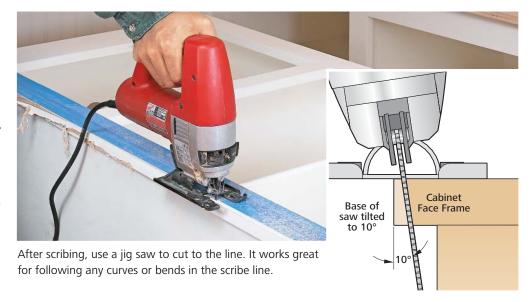
Then, place one side of the compass against the wall, and the other on the part to be scribed. Now run the compass along the wall, making sure to hold the compass at the same angle throughout the marking process.

If the cabinet has a visible side, chances are good that you'll have to scribe and cut both the face frame *and* side of the cabinet. To keep things simple, a good approach is to scribe and cut one area at a time. Start with either the most visible area, or the one with the largest gaps. Then move on to the next area.

STEP #3: SNEAK UP ON THE CUT LINE

Once you scribe your lines, it's time to trim off the excess material up to the marks. I've found that a two-step approach yields great results:

Use the Jig Saw First——For following the curves and contours of the scribe line accurately, it's hard to beat a jig saw. But don't cut the edge perfectly square. Instead, tilt the base of the saw to



10° and then "back bevel" the edge. This extra step ensures a tight fit against the wall, and makes it easier to remove any additional material from the edge. Use tape to protect the surface as you cut.

Sneak up to the Line——Keeping this in mind, you can begin cutting to the scribe line. But I recommend cutting slightly *outside* the line first. Then,

you can easily "sneak up" on the line using a sanding block or a block plane to get a perfect fit.

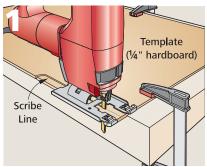
Once you have reached the scribe line, check the fit against the wall. If you still see any gaps, use the sander or plane to fine-tune the edge. Continue checking and tweaking this edge until it fits just right.

When (and How) to Use a Template

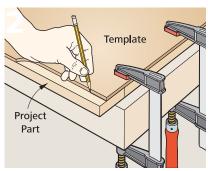


Cut the template to match the project part to be scribed. Set it in place, plumb and level it, and scribe it just like the project part itself.

There are a couple situations where it's easier to scribe and cut a template than the cabinet itself. One situation where a template comes in handy is for an "extreme" scribe, such as around a thick baseboard (*Photo, left*). Here, the template lets you experiment until you get the fit right. Second, a template is useful when the actual piece won't fit until after it's scribed, such as a face frame that spans between two walls. Making and using a template is fairly straightforward (*see Figs. 1-2, below*).



1] Clamp the template to the edge of a work surface, and use your jig saw (or belt sander) to cut the template to match this scribe line.



2] Finally, clamp the template in place on the project part itself. Transfer the line from the template to the part, and then cut to the scribe line.

BACK TO BASICS:

Beautiful Built-Ins

One of the secrets to a great looking built-in is actually simpler than you think.

deally, a built-in project should blend seamlessly with the walls and ceilings of a room. Painting is one way to accomplish that, which is what we did with the book nook. But that alone isn't enough.

No matter how carefully you plan, build, and scribe the cabinet to fit the space, paint won't cover the small gaps that are sure to exist.

If the project has a face frame, it's quite likely to have a few hairline gaps between frame members or between the frame and the case. Priming the project will make it easy to see these gaps. To make them disappear, fill the gaps with spackle (*Inset Photo*) and lightly sand the surface before applying the "color" coat of paint.

Other gaps, like those between the project and the walls and ceiling can be taken care of with a carefully applied bead of caulk (below).



It's the details that count to successfully integrate a built-in cabinet into a room. Though seemingly insignificant, spackling and caulking correctly make a huge difference.





Caulking doesn't have to be a messy job. To form a clean bead, hold the tube almost perpendicular to the gap. Then use a damp rag to tidy up imperfections.

HOW TO GET A BETTER BEAD OF CAULK

As simple as it seems, applying a smooth, tidy bead of caulk takes some finesse. Start by cutting the tip of the tube to match the largest gap (*Illustration*, *below left*). The angle you hold the tube in relation to the joint line also makes a difference. I hold it almost perpendicular to the joint, so the tip "knifes" off any excess caulk (*Illustration*, *below right*). If necessary, use a damp rag to clean up small smears (*Inset Photo*).

