Bookcase Plans

Here is a great weekend project for beginning woodworkers. Most everyone owns books and needs a place to display them. Here is an easy project that will add beauty and functionality to your home office.

You can make it out of solid hardwood or use plywood and trim the edges with edge banding. The finished project is 48” high by 23 1/2” wide by 12” deep. Features four shelves, with three of them being adjustable. Build this beautiful bookcase and you can turn your collection of books into a library. Plus, it's an easy project.

Be sure to check out our corner desk plans for which this bookcase was designed to compliment.
# Bookshelf Plans

## Table of Contents

Materials List .................................................................................................................................. 1  
Notes ............................................................................................................................................... 2  
Top and Shelves Dimensions ......................................................................................................... 3  
Sides and Back Dimensions ........................................................................................................... 4  
Face Frame and Miscellaneous Dimensions ................................................................................ 5  
Hole Layout – Sides and Back ....................................................................................................... 6  
Hole Layout - Face Frame and Miscellaneous Parts .................................................................... 7  
Attach Gussets to Sides ............................................................................................................... 8  
Assemble sides ............................................................................................................................. 9  
Attach Top .................................................................................................................................. 10  
Assemble face frame ................................................................................................................... 11  
Attach face frame ....................................................................................................................... 12  
Attach back ................................................................................................................................. 13  
Assembled Bookcase .................................................................................................................. 14  
Face Frame Bottom Cutout ......................................................................................................... 15  
Cutout Diagrams ......................................................................................................................... 16

Copyright © 2009 by Robert E. Reedy, Vandalia, Ohio  
All Rights Reserved
Materials You Will Need

Two 11 1/4” by 96” oak boards
One 7 1/4” by 96” oak board
One 48” by 24” sheet of 1/4” oak veneer plywood
Fifteen pocket hole face frame screws (1 ¼”)
Seven #8 flat head wood screws (1 1/2”)
Four #8 flat head wood screws (2”)
Ten finishing nails (1 1/2”)
Twelve metal or plastic shelf supports (¼” pin diameter)

Item List

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Size</th>
<th>Material</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>23 1/2” by 12”</td>
<td>3/4” Oak</td>
<td>1</td>
</tr>
<tr>
<td>Shelves</td>
<td>21 3/8” by 10 3/4”</td>
<td>3/4” Oak</td>
<td>3</td>
</tr>
<tr>
<td>Bottom</td>
<td>21 1/2” by 10 3/4”</td>
<td>3/4” Oak</td>
<td>1</td>
</tr>
<tr>
<td>Sides</td>
<td>47 1/4” by 11”</td>
<td>3/4” Oak</td>
<td>2</td>
</tr>
<tr>
<td>Back</td>
<td>45 1/8” by 22 1/8</td>
<td>1/4” Oak Plywood</td>
<td>1</td>
</tr>
<tr>
<td>Face Frame Side</td>
<td>47 1/4” by 1 1/4”</td>
<td>3/4” Oak</td>
<td>2</td>
</tr>
<tr>
<td>Face Frame Top</td>
<td>20 1/2” by 1 1/4”</td>
<td>3/4” Oak</td>
<td>1</td>
</tr>
<tr>
<td>Face Frame Bottom</td>
<td>20 1/2” by 3”</td>
<td>3/4” Oak</td>
<td>1</td>
</tr>
<tr>
<td>Rear Top Support</td>
<td>21 1/2” by 1 1/4”</td>
<td>3/4” Oak</td>
<td>1</td>
</tr>
<tr>
<td>Rear Bottom Support</td>
<td>21 1/2” by 2 1/4”</td>
<td>3/4” Wood</td>
<td>1</td>
</tr>
<tr>
<td>Bottom Gusset</td>
<td>10 ¾” by 1 1/2”</td>
<td>3/4” Wood</td>
<td>2</td>
</tr>
</tbody>
</table>
Cut a dado 3/8" deep and 1/4" wide on the inside edge of each side piece. This for the back panel. See the detail to the left.
Face Frame & Miscellaneous Dimensions

Rear Bottom Support
- 21 1/2 in
- 2 1/4 in

Face Frame Top
- 1 1/4 in
- 20 1/2 in

Rear Top Support
- 1 1/4 in
- 20 1/2 in
- 10 in
- 1 1/2 in

Bottom Gusset (2 Required)
- 1 1/2 in
- 10 in

Face Frame Front (2 Required)
- 47 1/4 in

Face Frame Bottom
- 20 1/2 in
- 3 in

Cut the opening in the Face Frame Bottom as shown below. See Page 15 for details.

Copyright (c) 2009 by Robert E. Reedy
All Rights Reserved
For the shelf supports, drill 1/4" diameter holes on the inside surface of the sides as shown below. These holes should be 1/2" deep. Use a drill stop to ensure you don't drill through outer surface of the sides.

Drill two pocket holes at the top. Holes are 1 1/2" from edges.

Drill the back panel mounting holes with a 5/32" bit as shown below. These holes are 3/16" from the edges.
Drill a \( \frac{3}{16}'' \) hole through each end and center of the edge of the Face Frame Front.

Drill a pocket hole on each end of the back side of the Face Frame Front.

Drill two pocket holes on the back side of the Face Frame Bottom. These pocket holes should be about \( \frac{1}{2}'' \) from the top and \( \frac{1}{2}'' \) from the bottom.

Drill a \( \frac{3}{16}'' \) hole through each end & center of the edge of the Rear Top Support.

Drill a pocket hole on each end of the back side of the Rear Top Support.

Drill two pocket holes on the back side of the Rear Bottom Support. These pocket holes should be about \( \frac{1}{2}'' \) from the top and \( \frac{1}{2}'' \) from the bottom.

Drill two \( \frac{3}{16}'' \) holes through the front side of each Bottom Gusset. These holes should be \( 1 \frac{3}{4}'' \) from each end and centered from top to bottom.

Drill two \( \frac{3}{16}'' \) holes through edge of each Bottom Gusset. These holes should be \( 1 \frac{1}{4}'' \) from each end and centered from top to bottom.

Drill three pocket holes on the underside of the Bottom as shown.
Apply glue to mating surfaces and attach a Bottom Gusset to the bottom of each side as pictured below.

Be sure the end of the gusset is flush with the front edge of the side.
Step 1. Apply glue to mating surfaces and attach the Rear Top Support to the sides with pocket hole screws as pictured below.

The Rear Top Support should be flush with the top of each side and flush to the inner surface of the dado.

Step 2. Apply glue to mating surfaces and attach the Rear Bottom Support to the Sides with pocket hole screws as pictured below.

The Bottom Support is flush with the inner surface of the dado.

Apply glue to mating surfaces and attach the Bottom to the gussets with two inch screws as pictured above.

Be sure the end of the Bottom is flush with the front edges of the sides.
Position the Top so it is flush with the rear edges of the sides and centered from side to side.

Apply glue to mating surfaces and secure the Top to the sides with pocket hole screws and to the Rear Top Support with 1 3/4" flathead screws.
Apply glue to mating surfaces and assemble the Face Frame with pocket hole screws as shown. Check to make sure the assembled frame is square. If not, clamp it in a squared position before tightening the screws.
Apply glue to mating surfaces and position the Face frame so it is flush with the Top and centered from side to side.

Step 1. Secure it to the Top with three 1 3/4" flathead screws.

Step 2. Secure it to the sides with 1 1/2" finishing nails as shown.

Step 3. Secure it to the bottom with pocket hole screws using the holes already drilled in the bottom.

Step 4. Using a nail set, countersink the finishing nails so they are below the surface of the wood and fill the holes with wood putty.
Position the Back so it is inside the dados on the sides and flush with the underside of the Top.

Secure the back with 3/4" #6 pan head wood screws as shown below.
After the glue dries, you're ready to sand and finish the assembled bookcase and the three removable shelves.

Insert the shelf supports into holes for the desired locations of the shelves and your bookcase is good to go.
Cut the opening in the Face Frame Bottom as shown below.

The grid line spacing is 1/4".

Face Frame Bottom

1" 1 1/2"

2 1/4" 2"

3/4" Radius
You'll need:

Two 96" by 11 1/4" by 3/4" boards.
One 96" by 7 1/4" by 3/4" board.
One 24" by 48" by 1/4" plywood.
More Plans from BobsPlans.com

- Free! Bookcase Plans
  - www.bobsplans.com
- Free! Home Bar Plans
  - www.bobsplans.com
- Free! Mantle Clock Plans
  - www.bobsplans.com
- Free! Bookcase Plans
  - www.bobsplans.com
- Free! Picnic Table Plans
  - www.bobsplans.com
- Wheelbarrow Plans
  - www.bobsplans.com
- Wheelbarrow Plans
  - www.bobsplans.com
- Free! Wagon Wheel Plans
  - www.bobsplans.com
- Free! Workbench Plans
  - www.bobsplans.com
- Free! Router Table Plans
  - www.bobsplans.com
- Panel Saw Plans
  - www.bobsplans.com
- Free! Pocket Hole Jig Plans
  - www.bobsplans.com
- Free! Tenon Jig Plans
  - www.bobsplans.com
- Free! Table Saw Sled Plans
  - www.bobsplans.com
- Free! Drill Press table Plans
  - www.bobsplans.com
More Plans from: www.bobsplans.com

Router Table  Workbench  Dog House  Picnic Table  Octagon Table

6 Foot Bar  Corner Desk  Book Case  Mantel Clock  Redwood Planter

Wheelbarrow  Spoke Wheel  Panel Saw  Trellis  Wheelbarrow

Pocket Hole Jig  Tenoning Jig  Table Saw Sled  Drill Press Table