Bookcase

There are several ways to build a bookcase. Certainly one way is to simply cut the lumber and nail it together. If you want a more finished product include rabbeting and dadoes. This will take a little more time but you'll like the finished product.

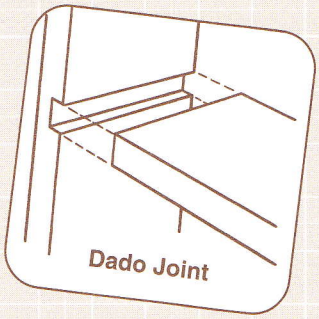
Toolbox

Rabbet plane, handsaw, combination square, chisel, hand router, lumber, glue, nails, finishing materials (i.e., paint, varnish, stain) goggles or safety glasses

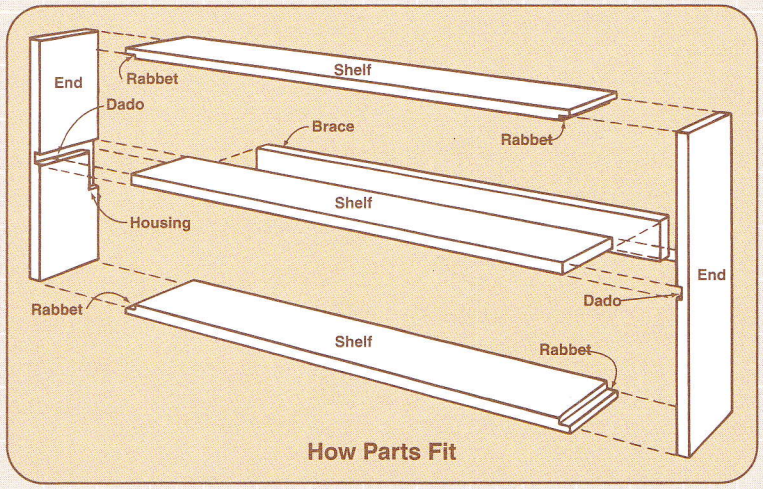
Note: *The size of the bookcase and kind of wood to use are your choice. Be sure to consider the width of the shelves and the size books it will hold.*

Bill of Materials

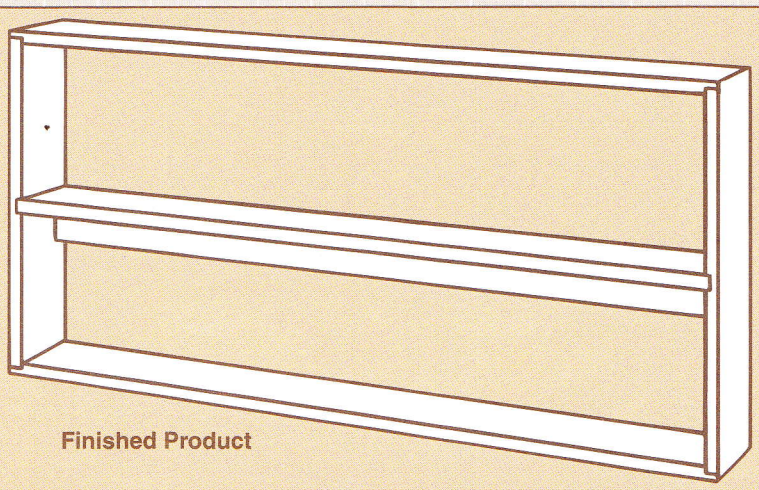
Qty	Item	Specifications
1	**Lumber**	1 by 6 *(Actual size 3/4" X 5 1/2")* or 1 by 8 *(Actual size 3/4" X 7 1/2")* *Length will depend on how large you make your shelf*
	Wood glue	
	Nails	6d finishing
	Stain or Paint	Your choice



Dado Joint



How Parts Fit



Finished Product

Steps to Take:

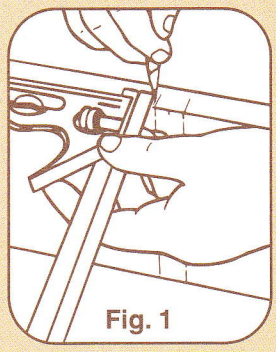


Fig. 1

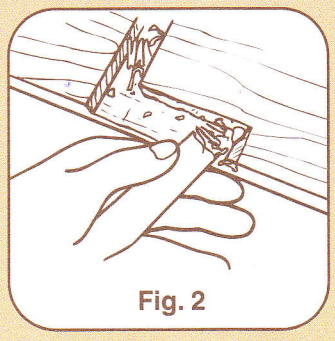
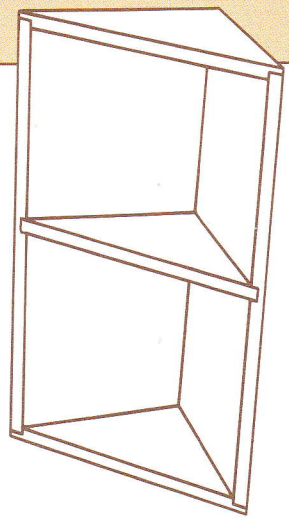


Fig. 2

- ☐ Obtain the lumber you'll need.
- ☐ Rabbet both ends of the wide boards that will be the top and bottom.
- ☐ Mark where the dado is wanted and use a square to mark the shelf measurements across the inside face of the board or two boards if your plan calls for two shelves.
- ☐ Extend the dado lines down both edges of the board with a combination square as shown and mark the depth of the dado on each edge with a marking. **(See Fig.1)**
- ☐ Gauge set to one-half the board's thickness (or mark along the end of the blade of a combination square, set to the depth of the dado).
- ☐ Cut the dado by sawing to depth along the layout lines, chiseling out the wood between the kerfs (use a chisel, narrower than the dado) and smoothing the bottom with a small hand router. Guide the saw with a straight piece of wood, called a batten, clamped to the outside of the layout line. Keep the saw vertical and level so the depth will be the same all the way across. Stop when the saw teeth touch the depth marks (at the same time).
- ☐ When chiseling use with level down (toward the wood) and drive it with the palm of your hand so you have good control of the depth you want. **(See Fig. 2)** Chisel in for each end of the dado to avoid chipping at edges of the board. Smooth the bottom with a little router. Use the same setting for all dadoes. Then continue to lower the blade until all dadoes are smooth.
- ☐ Check the end of dadoes for a correct fit with a board of shelf thickness. If a dado is too narrow, widen it with a side rabbet plane.
- ☐ Use a small combination square to mark the width and depth of the housings. Hold the pencil against the end of the blade and pull the square along the edge, chisel out the brace housings. Work slowly down to the lines.
- ☐ When the rabbets, dadoes and housings are cut, assemble the cabinet. Use glue and finishing nails. Be sure to assemble the top and bottom to the correct sides or the dadoes and housings won't line up across the cabinet.
- ☐ Install the brace. The length of the brace should be the same as the shelf's and its width equal to the length of the housing. Cut the brace slightly wider than it needs to be and plane it to fit. Nail through the back of the brace into the housing.
- ☐ Plane the joints and sand.
- ☐ Put a finish on your bookshelf.



For an extra challenge — Build a corner shelf that includes rabbeted top and bottom, dadoed side boards to accept the shelf and rabbeted edges of one side board to join to the other.

Acknowledgment: *Woodworking With Your Kids*, pages 38–45.