

Garden Bench

Original plans from Yellawood.

Description:

This sturdy garden bench is simple to build. The bench is made entirely from dimensional lumber and with only simple cuts and butt joints. The most complicated aspect of this bench is laying out and cutting the arms.

Skills Required:

Students must have the ability to read an assembly plan, properly measure, and operate a table saw, miter saw, and hand saw.

Materials:

Use redwood or cedar

- (6) 1 x 6 x 8'
- (5) 2 x 4 x 8'
- (1) 2 x 6 x 8'
- 2" deck screws
- 2 ½" deck screws
- 3" deck screws
- Waterproof wood glue

Tools Required:

- Miter saw
- Circular Saw
- Table Saw
- Jig saw
- Band Saw
- Drill/driver
- Compass
- 1/8" drill bit
- Clamps (2)

Bill of Materials:

Complete the bill of materials below for this project. Use the completed bill of materials for your record book budget by entering the name of the project and the total amount as an expense

Size	Description	Units	Qty/Project	Cost/Unit	Order	Amount

Project Price:

Enter the expected price you will receive for the project in your record book budget (income).

Estimated Construction Time:

5 hours.

Directions:

1. Cut the seat frame components (D and E) according to the dimensions on the cut list.
2. Arrange these pieces on your assembly table, keeping the outside of the frame ends flush with the ends of the front and back frame. Drill pilot holes and attach with 3" deck screws. You may find it helpful to clamp these pieces together as you attach them.
3. Measure and mark the center of the seat frame front and back and place the two middle stretchers so that the mark is centered within a 1 ½" gap between stretchers. This is where the middle back support will be sandwiched, so you may want to place a piece of scrap 2x stock centered on your center mark as you attach the stretchers with 3" deck screws.
4. Cut three seat slats (F) and place them on your seat frame assembly. Place the rear slat first, starting it 7" from the back of the seat frame. Place ¼" spacers between the slats, which should leave the front slat overhanging the front of the seat frame by about 1". Drill pilot holes and attach the slats with glue and 2" screws.
5. Lay out and cut three back supports (G) according to the detail drawing on the illustration. Make your cuts with a jig saw/ band saw or circular saw and use a straightedge guide if needed. Note you may wish to cut on a table saw using a jig. This technique will create a better quality cut.
6. Cut the three back slats (H) to length. Place your back supports on their back edges on your assembly table and place one slat so the top edge is flush with the top of the supports. The ends of the slat should be flush with the outside edges of your supports. Measure and mark the center of your slat and center the middle support there, again keeping the top edges flush. Attach with glue and 2" screws. Repeat with the remaining two back slats, keeping ¼" spacing between all slats.
7. Slide the back supports into place inside the seat frame assembly, sandwiching the middle support between the two middle stretchers. Attach with 3" screws through the frame ends and stretchers and into the back supports.
8. Cut the four legs (A) and two arm supports (B) according to the dimensions on the cut list. Lay an arm support on a pair of legs, keeping the tops and outside edges flush and attach with glue and 2 ½" screws. Repeat for other leg assembly.
9. Clamp the leg assemblies to the seat frame, keeping the arm supports facing inward, outer edges of the legs flush with the front and back of the seat frame, and the top of the seat slats 16" up from the bottom of the legs. Fasten with glue and 2 ½" screws.
10. Cut two arms (C) according to the length on the cut list. Refer to detail drawing to lay out the shape and cut with jig saw.
11. Place the arms on top of the arm supports, keeping the back of the arms flush with the back edges of the back legs. The notch should fit snugly against the seat back and the front of the arm should overhang the front of the arm support by about ¾". Fasten with glue and 2" screws.
12. Sand all surfaces and break all edges with sandpaper and apply a weatherproof finish

Cut List

- A (4) 1 ½ x 3 ½ x 23 ½"
B (2) 1 ½ x 3 ½ x 23"
C (2) ¾ x 5 ½ x 25"
D (2) 1 ½ x 3 ½ x 54"
E (4) 1 ½ x 3 ½ x 20"

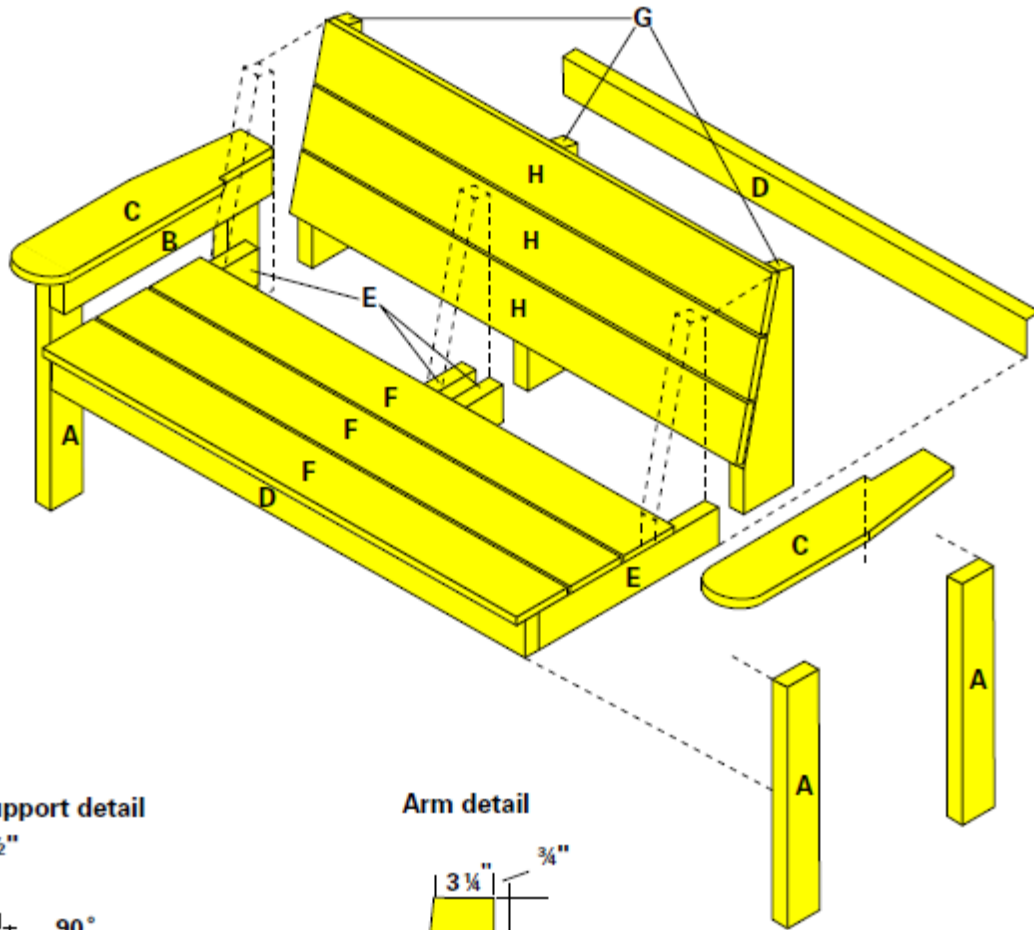
F (3) $\frac{3}{4}$ x $5\frac{1}{2}$ x 54"

G (3) $1\frac{1}{2}$ x $5\frac{1}{2}$ x $21\frac{3}{8}$ "

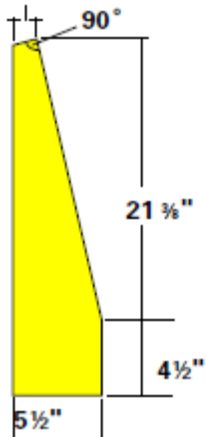
H (3) $\frac{3}{4}$ x $5\frac{1}{2}$ x 51"

Photo/Drawing:

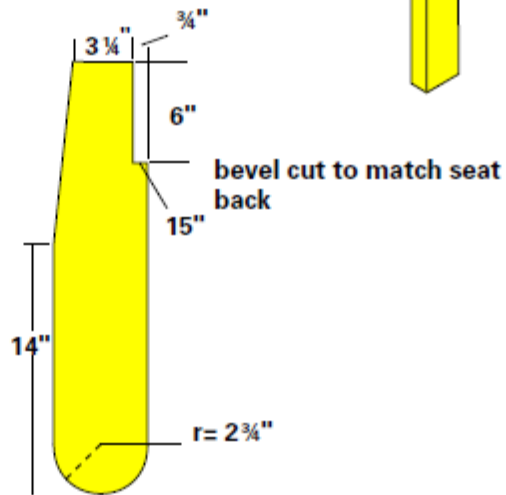
Photos collected from Yellawood®



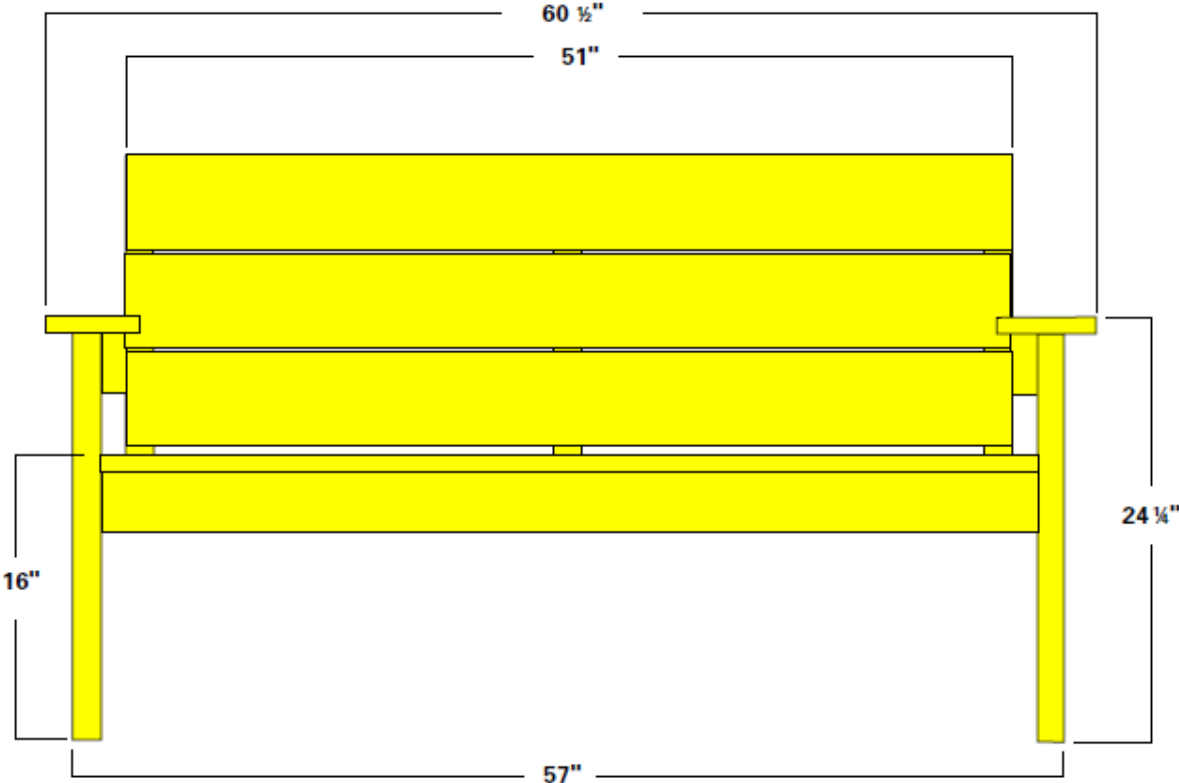
Back support detail
1½"



Arm detail



Front view & dimensions



Project Portfolio:

Complete a portfolio for the project that includes:

- A description of the project and the skills you learned building the project. Include the hours spent on the project and the income (if sold). Use the construction log to complete this narrative. Write in complete sentences.
- The Bill of Materials
- The project plan
- 2-8 photos documenting the project at various stages of construction.