

Project Ideas & Information

Outdoor Table & Seats



Before purchasing tools, timber and materials, read every step thoroughly then talk to one of our experts

This outdoor table with attached seats features uncomplicated cutting and assembly techniques and you can build it in a day. It uses standard dimensional timber sizes and only basic carpentry tools are required for the fabrication.

Step 1: Selecting Materials

The basic components of this project are the table top and supports, seat tops and supports, and the legs. Because your table is likely to be exposed to the weather we have chosen treated pine for the construction, although you could use another suitably durable and dimensioned timber if desired. Treated pine timber should have an H4 rating for on, or below ground application and an H3 rating for above ground.

This timber is treated with compounds of copper, chromium and arsenic, termed CCA. When using this material:

- Wear gloves and dust masks when sawing.
- Any cut or sawn surface of this material will need resealing to ensure its effectiveness in resisting attack.
- Dispose of any off cuts by burying them or taking them to the tip. Don't burn them as the smoke and ash are toxic

Coach bolts, nuts, washers and batten screws should be hot-dipped galvanised to maximise the longevity of your picnic table.

Ideally for this design the table length could be 1800mm or 2100mm. For an 1800mm long table you will need the following, so you should adjust the length of the table and seat tops if you opt for a longer length.

2/2400mm lengths of 140mm x 45mm for the 4 legs.

4/1800mm lengths of 90mm x 45mm for the 4 seat supports.

2/2400mm lengths of 140mm x 45mm for the 4 table top supports.

7/1800mm lengths 140mm x 45mm for the table top.

2/1800mm lengths 140mm x 45mm for the seat top.

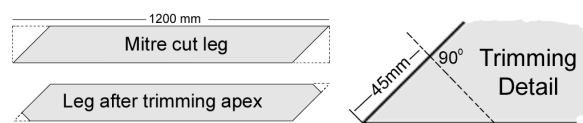
4/1800mm lengths 90mm x 45mm for the seat top.

The fixings you will need are 8mm X 125mm galvanised coach bolts, washers and nuts (16 sets), 75mm treated pine screws (208).

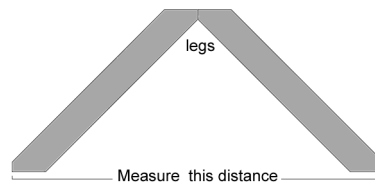
Step 2: Cutting The Legs

The legs are cut from two 2400mm lengths of 140x45 treated pine. First, cut each 2400mm length into two 1200mm lengths. You should now have four legs each measuring 1200mm. Each leg now has to be mitre cut at 45 degrees at each end so that the ends are parallel.

The next step is the most critical of the whole project so take your time to ensure you get it right.



Use a combination square and measure back 45mm along the mitre cut, from the apex of the leg. Mark a line perpendicular to the mitre cut, which should end at the edge of the leg, 45mm across. Mark and cut these points off on all eight ends of the four legs. That's as hard as it gets and completes cutting of the legs.



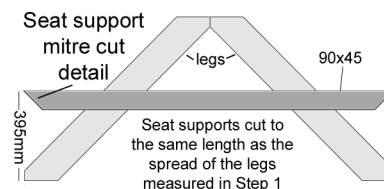
On a flat surface (and using the diagram as a guide) lay out the legs in pairs with the two 45mm end faces butted together. The other 45mm faces represent the outermost extremities of the table. The parallel mitre cuts

form the contact points with the underside of the tabletop and the ground.

With the legs aligned in this fashion, measure the distance between the outer ends of one set of legs; it should be around 1717mm. Repeat the measurement on the other set of legs to make sure it is the same. In the next step, you will use this measurement to determine the length of the beam that will support the seats.

Step 3: Cutting The Seat Supports

By cutting the seat supports to the measurement you made in the last step, the outer edge of the seat will be plumb with the outer end of the legs. The advantage of this is that the whole thing can be propped up on its side without it falling over when you want to mow or rake under it.



You will need four seat supports so, using the 1800mm lengths of 90mm x 45mm, cut four seat supports to the measurement made in Step 1. Now mitre cut the ends of the beams so the ends angle inward and

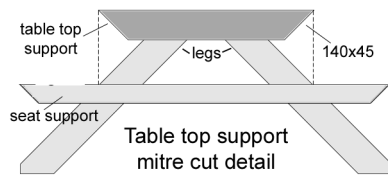
downward on all eight ends as per the diagram.

The seat supports are used in pairs, at each end, sandwiching the leg assemblies and are attached at a height suitable for a final seat top height of 440mm. Therefore the top of the seat support is set at a height of 395mm from the ground.

Step 4: Cutting The Table Top Supports

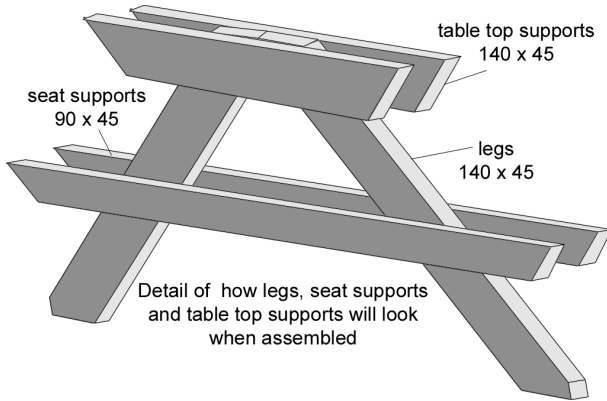
The table top is supported by pairs of supports sandwiching the legs, in the same manner as the seat supports. The length of the table top supports is determined by measuring the distance between the

intersecting points of the seat supports and the legs. It should be about 1015mm.



So, using the two 2400mm lengths of 140mm x 45mm, cut four table top supports to 1015mm (or to the measurement

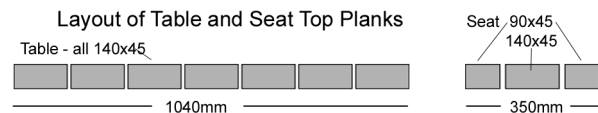
you made), and mitre the ends, as you did for the seat supports.



Step 4: Top & Seat Planks

140mm x 45mm planking is used for the table top and based on this and the length of the table top supports, we can determine that we can use seven 140mm x 45mm planks, set at 10mm spacing, to achieve a 1040mm wide top. This will allow a slight overhang on each side of the supports and the spacing can be adjusted if your measurement for the supports was not quite 1015mm.

Use the seven 1800mm lengths of 140mm x 45mm for the table top.



The seat tops will need to cover about 350mm and to achieve this, the seat is planked with the one 140mm x 45mm plank flanked by two 90mm x 45mm planks. The spacing on the seat planks is set to cover the entire space from the outer end of the seat beams to the edge of the legs.

Use two 1800mm lengths 140mm x 45mm and four 1800mm lengths 90mm x 45mm for the seat tops.

Step 5: Leg Assembly

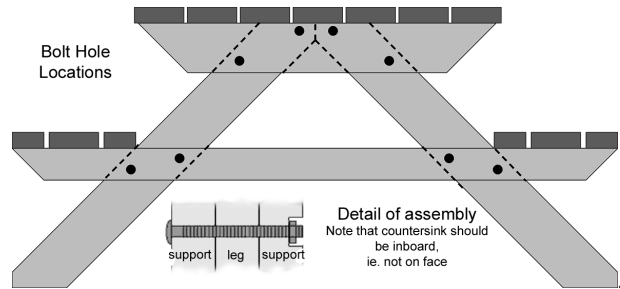
Previous diagrams have shown how everything fits together so now it's time for the actual assembly.

Start with the leg assemblies by laying a table top support and a seat support flat on a large level work surface, such as a garage or workshop floor. Now lay a pair of legs on top of the supports, and then lay another pair of supports on top of the leg pieces.

Use a framing square to ensure that the legs are exactly perpendicular at the corner where they meet. Measure the height of the seat beams (395mm) from the bottom of the legs, a straightedge laid across the bottoms of the legs is handy for this.

Once everything is in position, drill 8mm holes through both the supports and the leg at two locations where each pair of pieces connect to each other. On the inboard surface of the lower supports, use a 25mm spade bit to counter sink the hole about 10mm deep.

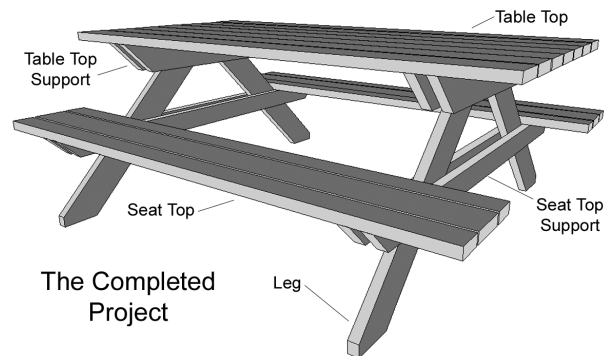
Use the 8mm X 125mm carriage bolts with a flat washer under each nut to fasten the leg assembly together. The nut and washer are used on the countersunk side of the supports. Care should be taken to get everything aligned correctly to avoid a table that rocks.



Repeat the procedure for the other leg assembly.

Step 5: Top and Seat Assembly

The leg assemblies should be fixed about 250mm in from the ends of the table top. Screw the top and seat planking into place on top of the table top supports and seat supports using two 75mm treated pine screws to fasten at each intersection of planks and beams. For a neater appearance you should initially use a ruler to mark out the position of the screws and pre-drill and counter sink all holes.



Hints

- With the addition of intermediate leg and support assemblies, there is virtually no limit on the length of the table.
- To avoid twisting and cupping, use quality kiln dried timber.

Important Notice: After the end of March 2006, CCA treated timber will not be permitted for use as handrails, decking boards, picnic tables and children's playground equipment. These products will need to be treated with an alternative timber treatment such as ACQ (alkaline copper quaternary)

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