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# Other Ideas from Pergolaplans4free.co.uk

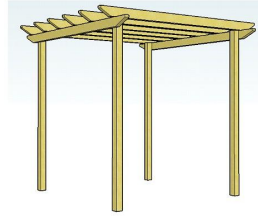
## Free Plans



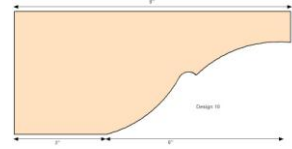
[Pergola Plans](#)



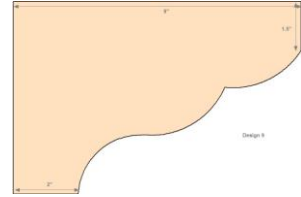
[Simple Pergola Plans Design 1](#)



[Simple Pergola Plans Design 2](#)



[4" Pergola Rafter Template](#)



[6" Pergola Rafter Template](#)

## Other Plans



[Corner Pergola](#)



[Attached Lean-to Pergola Plans](#)



[Pergola Arch and Arbour Plans](#)



[Asian Pergola Plans](#)



[Hexagonal Pergola Plans \(coming](#)

All the pergola plans come with 18 free rafter tail templates, and are fully adaptable to suit your size requirements and style preferences.

## Additional Resources

[Pergola Ideas](#)

[Pergola Climbing Plants](#)

[Pergola Kits](#)

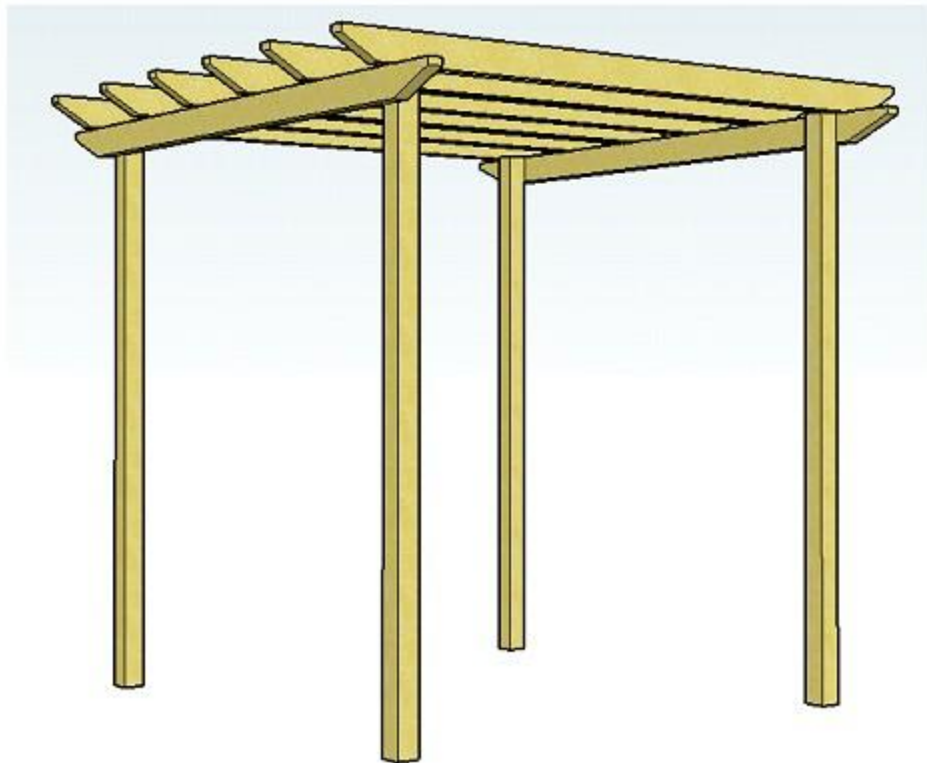
[Pergola Pictures](#)

[Garden Makeover Ideas](#)

[Garden Furniture Ideas](#)

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## Glossary of Terms

<b>Tools</b>	
<i>Builder's square</i>	<i>Gives an exact right angle, and can be wedged up against wood to mark lines at right angles</i>
<i>Combi-drill / Drill driver</i>	<i>A power tool that drills and screws</i>
<i>Bit</i>	<i>The screw or drill that is attached to the chuck of the drill</i>
<i>Reciprocating saw</i>	<i>A powered saw</i>
<i>Pilot drill</i>	<i>A small drill bit of approx. 2mm that is used before drilling with the main bits to help prevent the wood from splitting.</i>
<i>Post level</i>	<i>A spirit level that fits around the corner of a post enabling you to level the post in both directions.</i>
<i>RCD</i>	<i>A circuit breaker that cuts the power if something goes wrong with a power supply to a power tool</i>
<b>Materials</b>	
<i>Rafters</i>	<i>Planks of wood that form the pergola roof</i>
<i>Ballast</i>	<i>A pre-mixed sand and gravel that is used for the basis of concrete</i>
<i>Concrete (can be used to fix posts)</i>	<i>A mix of ballast and cement</i>
<i>Post anchor/Metpost</i>	<i>A metal square-section support for holding posts upright. They can either have a spike for hitting into the ground (used without concrete), or with a metal foot that beds into the concrete</i>
<i>Coach bolt</i>	<i>Strong bolt used to secure the rafters on to the posts</i>
<i>U-bracket / Fence clips</i>	<i>Used to join main rafters to support rafters</i>
<b>Plans</b>	
<i>Footprint</i>	<i>The measurements as a whole, in 2 dimensions</i>
<i>Main rafter</i>	<i>These run from the entrance to exit</i>
<i>Side rafter</i>	<i>Running on the sides</i>
<i>Rafter tail</i>	<i>The shaped ends of the rafter that stick out past the end of the posts</i>

## ***Tools and Materials***

### Tools:

*Tape Measure*  
*Step Ladder*  
*Workbench*  
*Post Level*  
*Spirit Level*  
*Mallet*  
*Hand Saw or powered saw*  
*Builders Square*  
*Sledgehammer*  
*Drill (Corded/Cordless)*  
*Drill Bit Set – 2mm and 8mm wood bit*  
*Spanner*

### Optional:

*Extension Reel*  
*RCD Safety Plug*  
*Reciprocating Saw (Corded/Cordless)*  
*Jigsaw - for cutting curved rafter tails*  
*Screwdriver Set*  
*Marking Paint*

### Materials:

*4(3" by 3") square posts*  
*8(4" by 2") rafters x (2.4m) lengths (treated timber)*  
*4(3" x 3") spiked Metposts / post anchors*  
*Metpost driving tool*  
*Screws (3.5mm x 16mm) for outdoor use*  
*Coach bolts (M8 x 110mm)*  
*Washers (M8)*  
*12 fence clips / U-bracket (47mm)*  
*Clear preservative*

### Optional:

*Wood stain/preservative*  
*Trellis panels for the sides*



*You can find most of the items [here](#). Just click on the link and enter the item name in the search box. The underlined links will take you to a page where the timber is sold (2" timber is actually sold as 47mm). You could just take a look, (if you are not sure what something is), and then buy from a DIY store or your local builder's merchant. Whatever is most convenient.*

*Several options may be listed. Choose any that are within your budget.*

*If you can afford DeWalt, Makita or Hitachi tools, go for those - DeWalt being the best – but there are many good priced items that will do the job.*

*Look in the 'Clearance' section, where they have items listed that are not available through their other pages, as you can get some great bargains here, e.g. drill bit sets and tubs of screws.*

## ***Adapting the Plans***

*The suggested materials for this pergola are based on a pergola with dimensions of 6' square.*

*You can, however, build your pergola any size you wish. You could, for instance have a pergola that is 6' wide and 12' long, or 4' wide by 6' long. The plans still work with any size of pergola.*

*Measure out the footprint on the ground and decide the correct size footprint for your garden. If you wish to add trellis to the sides, see the note below.*

*If you would like your pergola longer than the 6' example, you will need to do a few calculations before ordering your timber. The calculations for the example were done this way:*

*Measure from the outside of posts (this is much easier to do in millimetres) 1 to 3 and then divide by any whole number that gives spaces of around 12" to 14", (or 0.305m to 0.360m). This will give 5 spaces and therefore we will need 6 rafters for a 6' pergola length. You always need 1 more rafter than spaces.*

*To find out how many rafters you will need for a longer length, go through the same process.*

*An example would be:*

- *For an 8' long pergola, the metric measurement = 2.440m*
- *Divide this by 10 gives spaces of 0.244 (10") – probably a bit too close, unless you want your rafters really close together.*
- *Divide by 8, gives spaces of 0.305 (12"). You would need 9 rafters.*
- *Divide by 7, gives spaces of 0.355 (about 14"). You would need 8 rafters.*

*Either of the last two would be fine.*

*Visit ['Adapting the Plans'](#) for more detailed information (Even though the adaptations are written for the main pergola plans, the principles are the same). However, with this un-notched style of pergola (the rafters sit on top of the supporting side rafters) if you increase the length of the sides, it doesn't matter where the posts sit as they are fully underneath the rafters.*

*Also, because this example pergola uses thicker rafters (2" instead of 1"), the span from one post to the next can be increased to about 6'.*

*Don't forget that the rafter tails will add 18" to the length of the rafter timber.*

*Standard timber lengths, in both imperial and metric measurements, can be found here too.*

*'Adapting the Plans' also looks at:*

- *Different ways to fix your pergola to the ground. Metposts can be tricky to install if you have hard or stony ground. If so, consider using concrete or 'Postcrete' and extend your posts to 10'.*
- *How to create a different shaped rafter tail ends. Find them [here](#). They will give a unique feel to your pergola. With this pergola you won't need any notches. How easy is that?!*
- *How to make your rafter tails longer.*
- *Using larger posts and rafters to give a 'chunkier' feel.*
- *Fixing the rafters to give different effects: flush fitting, notched and un-notched rafters (although we will be using un-notched rafters, as this style of pergola is very easy to build).*
- *Using trellis panels for protection, shade and to support climbing plants.*
- *Adding purlins to add extra shade, and to give a decorative effect.*

### ***Attach Trellis to the Sides (Optional)***

*If you think you might like trellis running down the side, make the pergola fit the trellis, as it's so much easier!*

*So for a pergola of around about 6', have your pergola length measuring 6'6" long – that is 6' for the trellis panel, which will sit inside the posts(under the side rafter) + 2 x 3" for the posts which = 6'6".*

*The trellis looks much neater when fitted between the posts rather than on the outside.*

### ***Organise Your Project***

- *Print these plans.*
- *Make your rafter tail template or choose it from:  
[www.pergolaplans4free.co.uk/pergola-rafter-tails.html](http://www.pergolaplans4free.co.uk/pergola-rafter-tails.html)*
- *Print the list of tools and materials. Tick off as you gather them together.*
- *Check for any adaptations that you may need, or want, to make:  
[www.pergolaplans4free.co.uk/adaptingtheplans.html](http://www.pergolaplans4free.co.uk/adaptingtheplans.html)*
- *Place in a ring binder or clip board.*

*Ready to begin? Let's get going!*

# Simple Pergola Plans

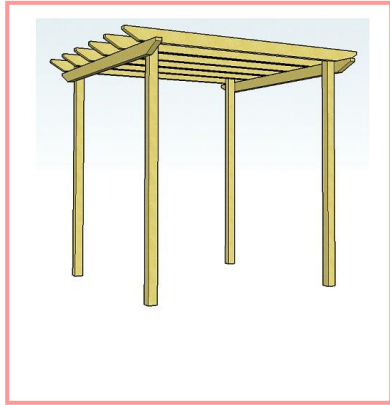


Fig. 1

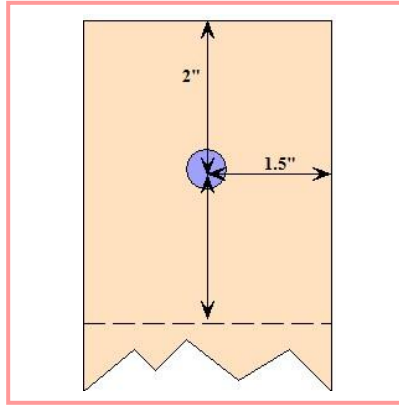


Fig. 2

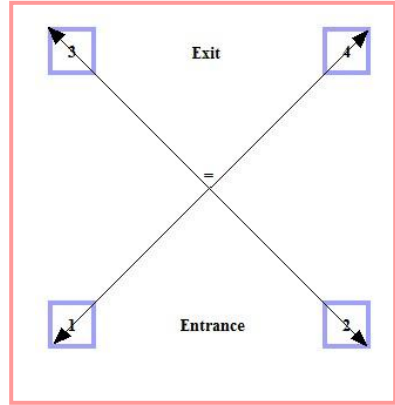


Fig. 3

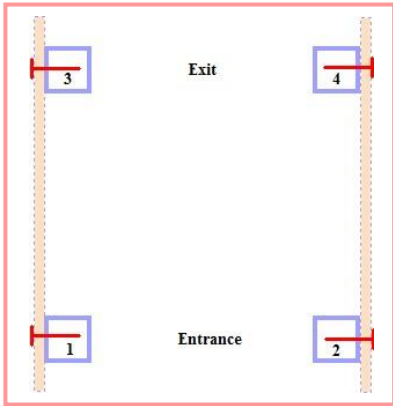


Fig. 4

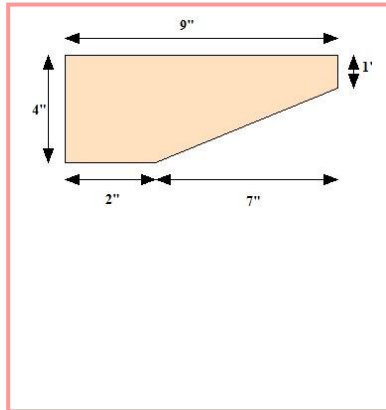


Fig. 5

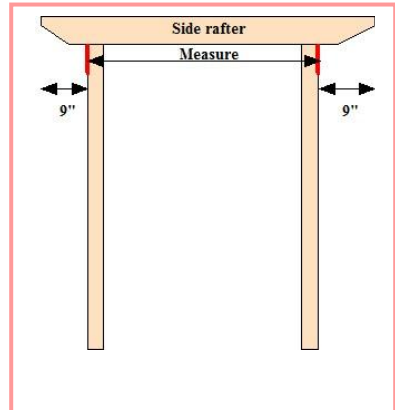


Fig. 6

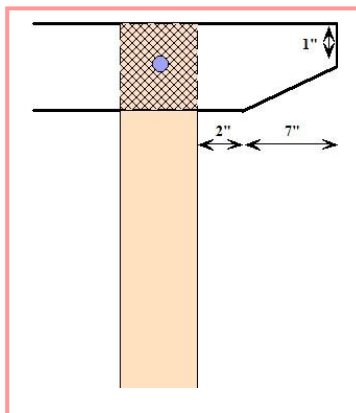


Fig. 7

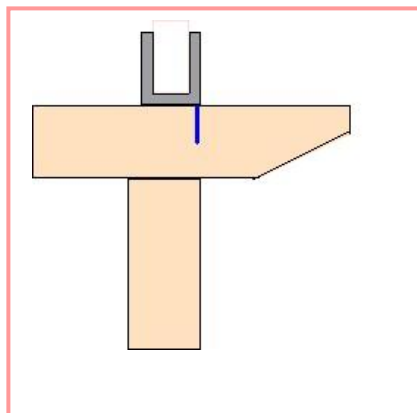


Fig. 8

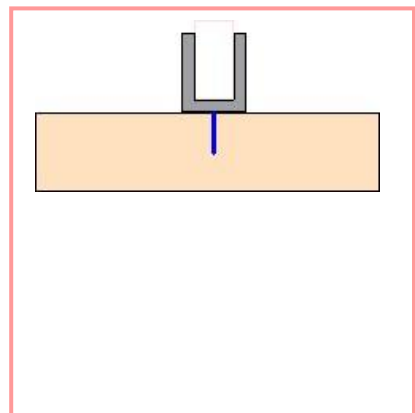


Fig. 9

## *The Plans*

### *Position the Posts*

1. *Check that there are no underlying services i.e. electricity, water and cable, as these can be very expensive to repair!!*
2. *Decide how tall you would like your pergola – I usually go for 7 ½' posts – so cut the posts down now if you want them shorter than 8'. Or you can just leave them.*
3. *On the top of each post, measure down 4" and then mark 2" down and 1.5" across for the bolt hole. (fig. 2)*
4. *Drill through the post with your 8mm drill.*
5. *Now we need to position the Metposts. Measure the entrance so that it is exactly 6' (or whatever measurement you have decided on). Turn your Metpost upside down and mark posts 1 and 2 on the ground.*
6. *Do the same for Metposts 3 and 4, checking that the diagonal distance between 1 to 4, and 2 to 3, are equal. (fig. 3)*
7. *Position Metpost 1 into the ground and drive it in with the driving tool and sledgehammer.*
  - *Keep adjusting the Metpost to keep it square, using the handle on the driving tool, as they do tend to skew as you hit them in.*
  - *Insert only the spike into the ground.*
8. *Do the same with Metposts 2, 3 and 4.*
9. *Place the 3" x 3" wooden posts into the Metposts, making sure the bolt holes are placed in the correct direction. (fig. 4) Tighten the bolts.*
  - *You may need to use a mallet if the post is a tight fit.*
  - *Make sure the post is perfectly upright using the post level.*
  - *Tap lightly on the side to bring it level.*

*Well done. Now we will start to cut the rafters.*

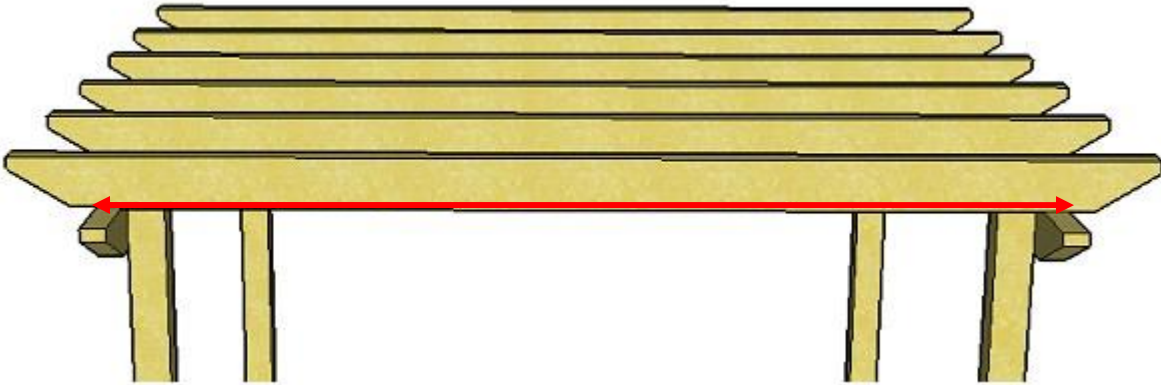
## ***Attach the Side Rafters (Those running from posts 1 to 3 and 2 to 4.)***

1. *Firstly, make a template for your rafter tails/ends. Mark on both ends. (fig. 5)*
  - *A shoebox or cornflake packet will do.*
  - *If you would like a ready-made rafter template or would like a wider choice of styles, go to [www.pergolaplans4free.co.uk/pergola-rafter-tails.html](http://www.pergolaplans4free.co.uk/pergola-rafter-tails.html) for these.*
  
2. *Cut your 4" x 2" wood to the required length. To do this, just take the measurement from the outside of posts 1 and 3 and add 18" for the rafter tails - 9" for each side. (fig. 6)*
  - *Sometimes posts are not absolutely straight, but they can be pulled in or out slightly when you fix the rafter to the post.*
  
3. *Place your template onto the end of the side rafter. Mark all around it and then cut the sloping, or curved, rafter tail.*
  - *Take care that you have the template the right way up at both ends before you cut!*
  - *Mark the 9" line all the way down the depth of your rafter, as this is the mark that we will line up with the post.*
  - *Always check your markings before cutting.*
  
4. *Hold the side rafter up to the top of posts 1 to 3, and mark the bolt position, through the post bolt hole, with a pencil or your drill. Drill the side rafter with the 8mm drill bit. (fig. 7)*
  - *The 9" line should lie immediately outside, and flush with, the outside edge of the post.*
  
5. *Do the same with the opposite side rafter.*
  
6. *You are ready to bolt on the side rafters.*
  
7. *Line up the bolt holes and use a hammer or mallet to push the bolts through. Add a washer and then the nut. Tighten up. Do this for all four bolts.*
  - *The circular domed end of the bolt should be on the outside of the post.*

*You're nearly there – only the main rafters to put on!*

**Attach the Main Rafters (Those running from entrance to exit.)**

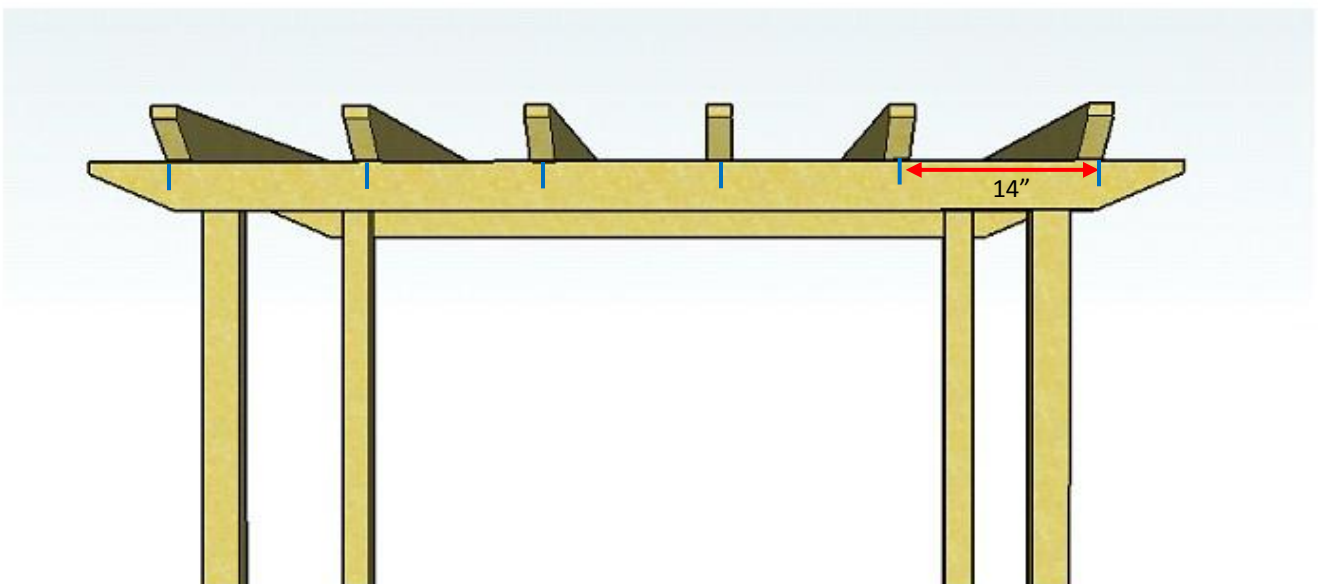
1. Cut the rafter lengths. For these rafters it is slightly different. We measure the distance from the outside edge of the side rafters and then add 18" for the rafter tails.



2. Use your template to mark and cut the ends.

- Check before you cut that you have marked both ends the right way up!

3. Now measure every 14" from the outside of the post along the length of your side rafter. This will give you 6 main rafters on a 6' long pergola.



4. *Attach U-brackets to the outside edge of the post on the end rafters (fig. 8): these rafters will sit partly on the posts. Drill pilot holes with you 2mm drill bit, before you screw, to stop the wood from splitting.*
5. *Then attach U-brackets at the marks you made on the side rafters. (fig.9)*
6. *Slot the main rafters in and screw the main rafters to the U-brackets.*

*Wow – looking great!*

## ***All Finished!***

*Last but not least, take a long cool beer, a glass of wine or a good old cup of tea, stand back and admire your newly built creation.*

*When you come to add some stunning climbing plants, take a look at [www.pergolaplans4free.co.uk/climbingplants.html](http://www.pergolaplans4free.co.uk/climbingplants.html), for ideas and advice.*

*For adding furniture to your seating area, you may find ideas at [www.pergolaplans4free.co.uk/gardenfurniture.html](http://www.pergolaplans4free.co.uk/gardenfurniture.html).*

*I would love to hear from anyone who has built this pergola. If you would like to give your comments, please visit [www.pergolaplans4free.co.uk/feedback](http://www.pergolaplans4free.co.uk/feedback).*

*Or have your pergola story on a page on the website. It's very easy to do, and we'd all love to see your creation! You can add it [here](#) .*