

Mason Bee Nesting Shelter

Building Plans

Using 2 x 2 Lumber (Cedar works best, but it's not necessary)

1. The height of the cube should be determined by how many shelves you want. Shelf height should take into account how many nesting devices (straws and/or trays) you intend to use plus space for an emergence box. Cut four lengths of the 2 x 2 lumber to the length of the height you've determined.
2. The depth of your cube (which is actually the width of the sides) should be determined by the depth of your nesting devices. Cut lengths of the 2 x 2 lumber to the same length of your nesting devices. These lengths of 2 x 2 lumber will be the cross-pieces for the sides of the cube and they should fit in between the "height" pieces (top and bottom) discussed in number 1. If you want shelves in your nesting shelter cut more of these side cross-pieces and space them accordingly on both sides. By placing these side cross-pieces in between the "height" pieces you've assured that the actual depth of the shelter will accommodate your nesting devices being set a little back into the shelter when it is finished.
3. Determine the width you want for your nesting shelter and cut three lengths of the 2 x 2 lumber to that length. Two of these pieces will be the cross-pieces for the upper and lower back of the shelter. These back cross-pieces unite the two sides of the cube together. Fasten these back cross-pieces in between the "height" pieces of the sides. The third piece of 2 x 2 lumber will be the cross-piece for the bottom front of the nesting shelter.

Using Cedar Fence Boards

1. **For the sides of the shelter:** Cut lengths of fence boards the same length as the height of the sides of the cube frame. Attach these fence boards to the sides of the cube by nailing or screwing them to the top and bottom of the cube side frames. One fence board on each side may have to be rip cut (lengthwise) so that the total width of the fence boards on the cube's sides corresponds to the total width of the cube's side frame width.
2. **For the back of the shelter:** Cut lengths of the fence boards 4" longer than the fence boards you cut for the cube's sides. You will want the back boards to extend all the way to the outer edges of the side panels. Attach these fence boards to the back of the cube (again, one board may have to be rip cut lengthwise) by nailing or screwing them to the cube's back top and bottom cross-pieces. Next, on the outer side of the back of the cube (at the top) mark the center of the back and draw a line (on each side) from this "peak" point down to the corner height of each side.





Using Corrugated Plastic

1. Cut a piece of corrugated plastic 10" wider than the width of the shelter and at least 6" longer than the depth of the shelter. When cutting the corrugated plastic, cut it so that the corrugation lines will run front to back when placed on the shelter. Mark the midpoints of the piece of corrugated plastic on both the front and back edges. Place the corrugated plastic on a firm straight edged surface with the mid-points



on the edge of the firm surface and gently bend the corrugated plastic so that it bends to form an angle (running front to back). Put the corrugated plastic on the cube's back "peaked"

surface. If you are mounting the shelter to a fence post or some other post you would not want any of the corrugated plastic roof sticking out beyond the cube's back fence boards. Using nails (I use ¾" roofing nails), fasten the corrugated plastic roof edge to the tops of the cube's back fence boards (this makes a roof peak). Lift the front of the corrugated plastic roof piece so that the ridgeline of the roof looks level (front to back) and then using more nails or gusseted screws (I use 1½" gusseted screws), attach the sides of the roof piece to the upper frame pieces of the cube's sides.

Using More Fence Boards

1. Cut lengths of the fence boards to fit inside and across the bottom of the shelter. These fence boards should be about ½" shorter than the distance of the inner width of the shelter (measured inner side fence board to inner side fence board). If you made more side cross-pieces for each side of the cube to accommodate shelves, cut more fence board pieces accordingly. You can either fasten these fence board pieces down or let them just "float" across the shelter.

Fastening Shelter to a Post

1. To fasten the shelter to a post you can drill two holes side-by-side (about 1½" apart) near the center of the upper back cross-piece and then put screws into these holes and fasten them to the post. 3 – 4" screws work well when fastening the shelter to a 4 x 4 post. You can also drill two holes near the center of the bottom back cross-piece and put two more screws into the post, if you feel more support is needed.
2. It is always advisable to drill pilot holes for the screws first before actually screwing wood to wood. The drill bit should be slightly smaller than the diameter of the screw used. I use 2½" screws to build the 2 x 2 frame pieces.

