



Mason Bee House

 **APPROXIMATE TIME: 3 1-HOUR CLASSES**

 **TOOLS & MATERIALS**

MATERIAL LIST

- Five pieces 1"x 6" x 5" SPF per house
- Roof: one piece of 1"x 6" x 8", so it hangs 2" over the front, and 1/2" over the sides
- Back: one 5"x5" piece of plywood, any thickness
- Wood glue
- Food grade finish (optional)
- Parchment paper or waxed paper
- 2 keyhole hangers,
- 4 screws to install back panel (make sure screws aren't longer than the thickness of the plywood backing)
- 4 wood screws (to attach the back)

TOOL LIST

- Drill press with varying extra-long bits (for 6" deep holes) from 5/32" to 1/4" for the house holes, and a small bit for the pilot hole to screw the back cover on
- Clamps
- Bandsaw (to angle the top of house for a shed roof, if you have the option in your shop)
- Pencil

PROCEDURE

- 1 Arrange the five 1x6 pieces together to form a large rectangular prism block, 6" deep. Spread glue on the sides you want to stick together, then clamp until dry.
- 2 **OPTIONAL:** At this point, if you choose to make a slanted roof, draw a cut line along the side of your structure, 1/2" from the top of the house front and angling up to the top back corner (see diagram). Ask your teacher to cut this line for you.
- 3 Lightly draw a pencil line down the centre of each 1x6 on the front of your house. Along these lines, mark pencil dots to plan the centres for your bee holes, ensuring that they are all at least 3/4" apart from each other. Vary the sizes of your holes to give the bees options. Drill your holes right through the 6" SPF using a variety of extra-long bits between 5/32" and 1/4".
- 4 Cut a piece of plywood to make a back cover for your house – You can lay your house on the plywood and trace around it, then cut the plywood rectangle out on the bandsaw or handsaw. Place the cover on the back of the house and drill 4 pilot holes the same diameter as the inner diameter of your screws.
- 5 Adding the roof: Centre the 8" piece of 1x6 on top of your house and draw the outline of the house on the underside of the roof so you know where to spread the glue. Spread wood glue on the top of your bee house and the underside of your roof, place the house onto the roof along your pencil lines, and clamp until dry.
- 6 If you choose to use a food grade finish, apply it to your house and the exterior of your back cover. Letting the wood weather is also an option.

7 Next, line the holes with parchment paper or waxed paper. Count how many bee holes you have and cut a rectangle of paper 8"x2" for each one. For each hole, roll the paper carefully around a thin pencil to make a long 8" tube, then push it into the hole from the back until the paper is flush with the front of your house. Pull the pencil out and fold the extra 2" of parchment paper tube down at the back to pinch it closed. Repeat for every bee hole. When all your holes are lined, screw the back-cover flush onto your house.

8 Screw the two keyhole hangers onto the top corners of the back cover.

9 Find the perfect place to put your Mason bee house. Ideally, it should be placed between 4' to 10' (1-3 metres) off the ground, facing the southeast so it gets lots of morning sunshine, and tucked somewhere that will protect the bees from wind and rain.

10 Research how to care for Mason bees and write up cleaning instructions and schedule manual for your house.

EXTENSION CHALLENGES

1 Mitre the roof to give it an angle down to shed rain water. Experiment with different angled roofs in different planes to make your house original.

2 Add some wire mesh (1/2" holes) to the front to protect sleepy bees from being picked off by birds on their way out of the holes.

3 Research food-grade dyes to colour or camouflage your bee house.