

# SCIENCE

## FROM HOME



## Pollinator and Bee Houses

A pollinator is an animal that helps to move pollen from one plant to another, allowing plant fertilization and reproduction. The best known pollinators include bees, butterflies and moths. Other types of pollinators include beetles, ants, some birds, and even bats! You may have seen “bee hotels” or “pollinator hotels” in the store recently. However, there are some issues with some store-bought bee houses. In order to keep the bee houses clean, the wood with holes in it needs to be removable, and not all store-bought houses allow that. You also want your pollinator house to be safe from parasites and water, to have entrances big enough for native species, and to be securely mounted.

### Know before you begin

- This activity can be done inside or outside
- All supplies are easy to find, substitute or modify
- Adult supervision is required
- Please choose a safe space for this activity

### Materials

- Try to use recycled or repurposed materials when possible! Just make sure that it hasn't been treated with wood preservatives
- Wood panels with the following dimensions: 8 inches wide x 12 inches tall (3), 12 inches x 12 inches (1)
- Logs or blocks of untreated wood
- Drill with drill bits from 2mm to 10 mm
- Screws
- Optional: paper straws or cardboard tubes

### Instructions

#### Creating the house

- Using the screws and drill, assemble the box from the wood. The dimensions of the box are 8 Inches deep, 12 Inches tall, and 12 Inches wide. The top panel should be flush in the back and have an overhang to protect the entrances from water.
  - You can make a house bigger or smaller but remember to keep the depth 8 Inches so the bees can use the tunnels.



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- Drill a variety of holes varying in diameter from 2mm to 10 mm. DO NOT drill through to the opposite side; the bees need one end of the tunnel closed. Make sure the tunnels are free from splinters and sawdust. Then, carefully stack the logs or lumber in the case you made.
  - Optional: you can use paper straws or cardboard tubes to line the holes to make cleaning easier. Avoid plastic straws, as they do not allow moisture to escape.

### Caring for the house

- Make sure your house faces morning sun and is off the ground.
- At the end of the summer, check and see what holes have been filled. Bring these nests into a location like an unheated shed or garage for the winter so that the temperature will remain similar to outside, but pests will have a harder time accessing the nests. You may want to place them in a cardboard box. Make sure you can keep the cardboard box dry!
- In the early spring, put the box outside in a dry spot that gets sun. Make sure the box is protected from getting wet and there are holes in the sides and top. After all the bees have left, clean the holes.
- If woodpeckers or other birds are attacking the bee house, consider putting chicken wire on the section they are attacking.

### If you do not have the materials or space, try these steps.

- Leave a brush pile in your yard that has stems, logs, branches, leaf clippings, and picked weeds that native bees and other local bugs can use.
- Leave some exposed soil in your yard
- Use compost or shredded leaves instead of wood chips, as these can be too difficult for ground nesting bees to get through.
- If it is safe to do so, leave a dead tree or stump to allow insects and birds to use it as they will!
- If you see an unsafe pollinator/bee house in a store, consider asking if the store knows that they are unsafe. Educating others about safe pollinator houses is important.



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## References

[Crown Bees](#)

[The horrors of mass-produced bee houses](#)

[How to Make and Manage a Bee Hotel: Instructions that Really Work](#)

[Solitary Bee Week](#)

[Guide to building and managing a mason bee hotel](#)

[Bring Back the Pollinators: 5 Ways to Increase Nesting Habitat for Native Bees](#)

[Nesting Resources](#)

[Nests for Native Bees](#)

[Bee Houses for Native Solitary Bees](#)



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