

Building a nestbox for birds

For whom: Primary and lower secondary school	Where: Technical work classroom
Wilderness passport section: Game management	When: Winter/early spring (the nesting boxes should be in place by April)
Learning outcomes: Bird ecology, woodwork skills	What you need: Board, nails, wire, hammer, saw, drill, set square, knife
Duration: Depending on the advance preparations and the pupils' age, around 1 to 3 hours (+ time needed to put the nesting boxes in place)	Personnel resources: 1

BACKGROUND

Nestboxes are needed in many types of forests, and you can also place one in a quiet location in your garden. Enough suitable natural holes for hole nesters are not always available, which is why nestboxes built by humans are essential for these species. Nestboxes are also useful in winter, as birds and squirrels can crawl into them to keep warm in freezing temperatures. Nestboxes also benefit humans. You can enjoy watching the chicks in a nestbox in your garden being fed by the parents and practising flying. In addition, insect-eating birds, including finches and tits, eat large numbers of mosquitoes and other insects as well as their larvae.

Wherever possible, you can place a nestbox built at school somewhere near the school and watch its occupants at different times during the school year. Who moves into the box in spring? When you clean out the box in the autumn, you can examine the egg shells (remember protective gloves and hygiene!). Or can you see any signs of animals looking for shelter in winter?

If each child builds their own nestbox, they can take them home. After the summer, you can talk to the class about which birds nested in the boxes.



Remember to make sure that the birds can nest in peace and to hang the boxes in a safe place! You should not position a nestbox in a location where the sun shines on it all day, at the wrong height, in a place that is too busy, or where the chicks may land on a road or other dangerous place when learning to fly. The structures of the nestbox must also be safe for the birds. The bottom of the box must not fall off, rain must not get inside, and any additional gaps must be blocked to prevent the birds from getting their feet caught or otherwise hurting themselves. Remember to attach the nestbox firmly. Also note that the boxes should be built with untreated timber, which is breathable, warm and appropriately rough.

Different bird species require different sizes and types of boxes. These instructions explain how to build a nesting box for a European pied flycatcher (*Ficedula hypoleuca*). However, by clicking on the links you can find instructions for building boxes that suit other birds, too. A great tit (*Parus major*) may also nest in a box built following these instructions. Both species are found throughout the country in gardens and bright deciduous and mixed forests.



ASSIGNMENT

1. Build a nestbox.

Materials for a nestbox suitable for a European pied flycatcher/great tit:

4 x wall piece (30 cm x 12.5 cm x 2.2 cm)

1 x roof piece (plywood, 19 cm x 24 cm)

1 x base piece (plywood, 10 cm x 10 cm)

1 x ceiling piece (10 cm x 10 cm)

1–1.5 m of wire

14 nails

+ a hammer, drill and measuring tape

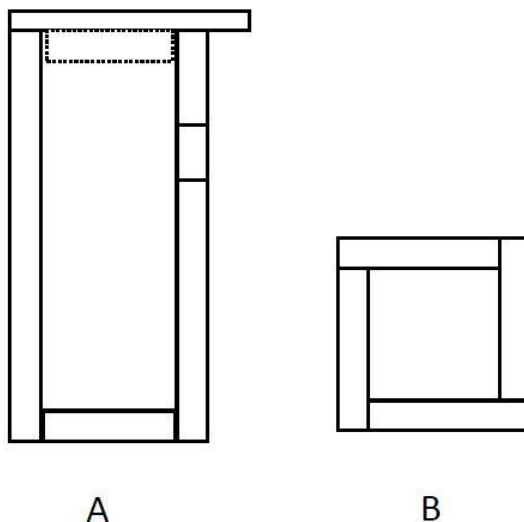


Diagram of the nestbox from the side (A) and top (B) without the roof. The edges of the roof protrude over the walls to form an overhang.

Instructions

1. Using a saw, cut out the wall, ceiling, roof and base pieces according to the dimensions and quantities listed above.
2. With the help of an adult (if needed), drill an opening on one wall. The diameter of the entrance hole should be around 3 cm, and it should be located 8 cm from the top edge of the wall. Make sure the hole is angled slightly *inwards and upwards* to prevent water running into the box.

3. Drill holes approximately 0.5-1 cm in diameter in all corners of the base board (not too close to the edge!). Their purpose is to drain any water that accumulates in the box.
4. Using nails, assemble the nestbox (see illustration B). The idea is that the bottom piece is inserted between the walls, after which the nails are hammered through the walls to keep it in place.
5. The box must be cleaned regularly, which is why you must be able to open the roof. The roof must also have an overhang to prevent water from getting into the nestbox. Attach the ceiling piece to the roof with nails. Check that the roof fits and stays firmly in place. If necessary, you can carefully shape the ceiling with a knife to make sure it fits snugly. In other words, you do not attach the roof to the walls with nails.
6. Finally, you need to make holes for the fastening wire. Drill two holes *inwards and upwards* in the top part of the back wall and thread a wire that is around 1 m in length through them.
7. If you wish, you can nail a metal protection plate around the entrance hole. The metal plate protects the chicks from squirrels. Make sure that the metal plate is firmly attached to the timber and that its edges are not too sharp, otherwise birds might hurt themselves. Using silicone could help.
8. Any cracks or other unwanted gaps should be filled in with silicone.
9. To attach the nesting box, use the wire to tie it to a tree fork, roughly at the height of 1.5 to 2 metres. Make sure that the box is attached securely and does not swing around in the wind. You should avoid damaging the tree, which is why it may be a good idea to use small blocks of wood between the wire and the tree. You should never nail a nestbox to a tree, as when the tree grows, the nails may be pushed out and the box may fall. Plastic string (or similar) should also not be used as it becomes brittle over the years. You can also attach a nestbox to a tree in winter!

