



AGE : 13 - 14

# Bird boxes - building and learning

Project number: KA201-050529

Activity n°2

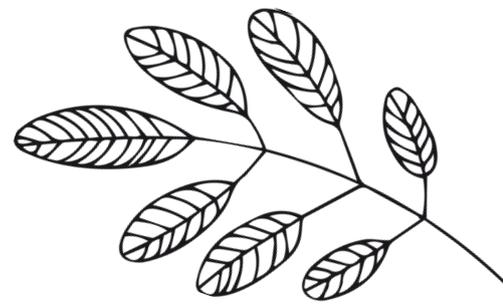
Co-funded by the  
Erasmus+ Programme  
of the European Union



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# Educator's guide





# Calendar

At any time of the school year as the activity takes place indoor at school but the best time would be early Spring or Autumn as nesting boxes for birds should be hung in the garden this time of the year.

## Duration

2 hours in total (with 2 breaks – of 10 min):

20 minutes – lecture

10 minutes break

1 h 30 minutes – building bird boxes (including 10 minutes break)



## Gamification method(s)

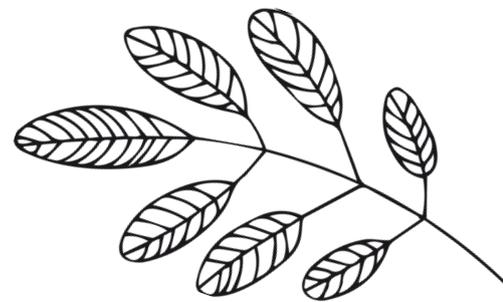
Draw, Design, Measure, Brainstorm.

Children will design birdhouses. Pupils will measure planks made of wood and choose appropriate elements - all with brainstorming in small groups.

## Preparation

Before the activity, the educator should prepare all the materials (cut planks and glue, paint some batches of wood) to provide children with ready-made elements. During the workshop, the educator tells the children about the project and presents the work plan. At this stage, the educator gives a short lecture on the birds that live in the area - so that children will have an idea why they need to build nesting boxes for specific birds of appropriate size and width.

source image: Pixabay



# Preparation

Birds that students see in their gardens every day during the breeding season are looking for places to lay eggs and raise chicks. Some of them look for natural hollows in old tree trunks - these in turn are practically missing in gardens. That is why it is worth to create for winged friends conditions imitating a natural cavity - such a task will be fulfilled by a well-prepared nesting box. Nesting boxes for birds should be hung in the garden in early Spring or Autumn.

The educator shows the materials to the children and tells them what techniques and fields of knowledge they will apply (Maths, Biology, Arts, Technology).

Some useful links that might help with all tasks:

- How to build bird boxes: <https://www.birds.cornell.edu/k12/educators-guide-to-nest-boxes/>
- How to Make a Bird Box : <https://www.youtube.com/watch?v=zHav3zGxSb8>
- About nest boxes system: <https://www.youtube.com/watch?v=shJSOgJopw4>
- About nesting boxes: <https://coolaustralia.org/wp-content/uploads/2013/07/How-to-build-a-nesting-box.pdf>
- About nest boxes: <https://www.wires.org.au/wildlife-info/wildlife-factsheets/Wildlife-Nest-Boxes-LLS.pdf>

Based on the material given or own sources, the educator should be prepared by estimating the approximate time and instructions/ steps children might need to develop a more thorough lesson.

# Tips for successful facilitation, supervision and organizing:

We suggest that the educator might underline how to observe birds in the “shelters”, feed them. Ways of waterproofing wood also can be an interesting issue that is not addressed to children during traditional classroom lessons.

## Desirable outcomes & obtained competences:

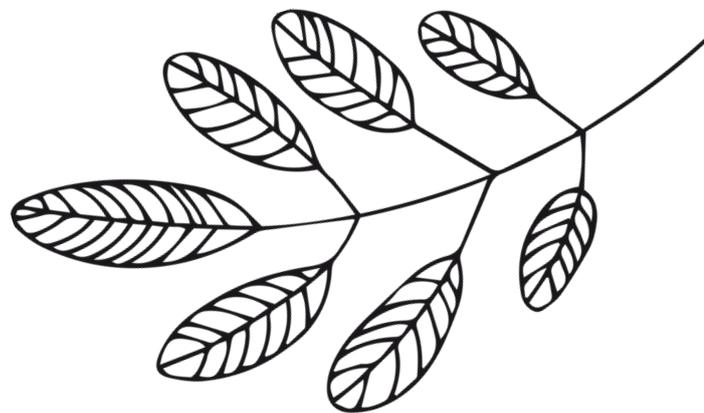
At the end of the workshop children should understand that the choice of material has an impact on ecology and should be able to understand that every human activity has an impact on the environment.

## Debriefing

Students at the age 13-14, step by step, during the activity will understand the impact of the work done for birds and environment.



source image: Pixabay



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# Students' worksheet



# Related STE(A)M theory:

Maths, Art, Biology, Design

Biology is primarily the science of living organisms. It learns a variety of processes of the surrounding plant and animal world, including the world of birds.

Thanks to science describes, modelled, and hypotheses are verified by means of mathematical experience and evidence. Students will measure the boards with ruler or measure tape in order to build bird boxes.

Students will use a bit of Art as well, they will paint the roof of the booth to protect it from water. They will choose the colour.

All the above fields of knowledge will be intertwined in the activity plan.

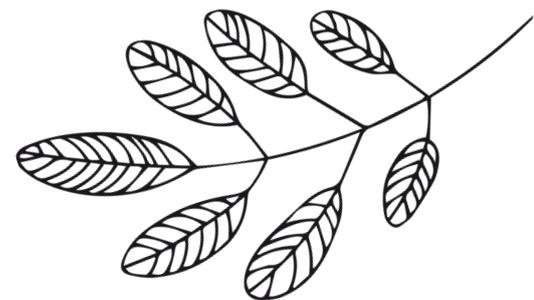
## Key words

Woodcraft, Engineering, Birds, Design, Environment, Ecosystems

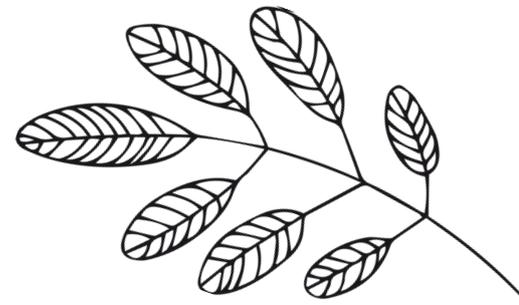


## General aim

You will learn how to build your own bird box, you will learn about ecology and about the impact of the work done for the environment.



source image: Pixabay

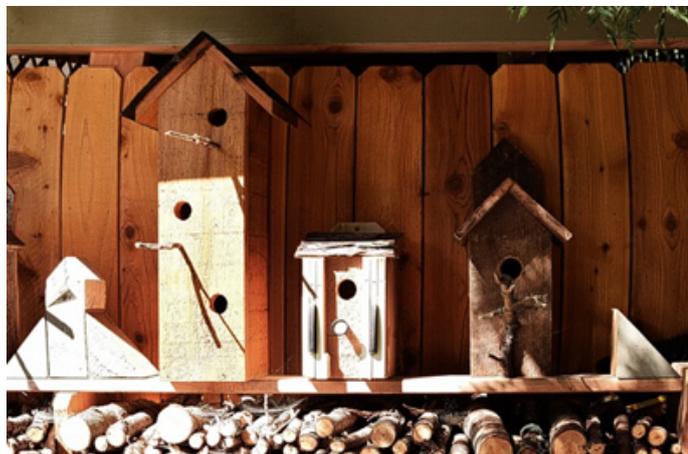


## Educational Objective(s)

- Understanding that the choice of material has an impact on ecology
- Being able to understand that every human activity has an impact on the environment
- Understanding that we all can help nature (for example in building bird boxes)

## Suggested Environmental Context

The classes are planned to be held at school (indoor) or in the school garden (outdoor) by a local association/organisation for education and nature conservation. But, of course, the workshops can also be organized in a local cultural and scientific centre, a local association, etc.



source image: Pixabay

# Necessary Equipment and Materials:

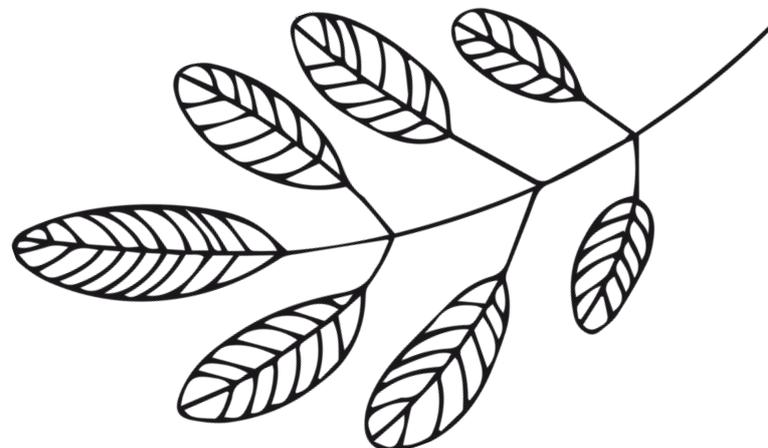
The Educator arrives with ready-made tool sets and all materials for the workshop. The boards/planks are already cut with have different lengths and shapes (children will measure their length and choose the most suitable elements).

Students are divided into groups of several people (maximum 4), in which they work and build a bird boxes under the supervision of educator.

## Necessary Equipment and Materials:

- wooden boards (already cut)
- wood screws
- sandpaper
- measuring tape/ruler
- hammer
- wood glue brush
- pencils
- paint
- special timber glue
- aprons for children
- gloves for children
- foil to protect the tables

**- all materials are provided by the instructor**



source image: Pixabay

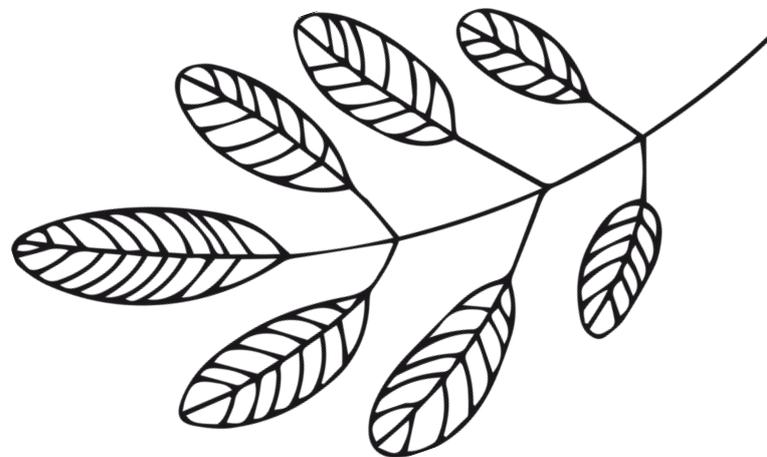
# Media and Resources

At the beginning, the instructor can show the children an album/poster with the birds (if the activity is outdoor) or show a short film about the birds and their places of residence, specifics (if the workshop is indoor).

Such a lecture will familiarize children with the specifics of birds, especially local ones, for which the booths are made.

Some resources that might be useful:

- About birds: <https://www.youtube.com/watch?v=jF0ld-hH9y4>
- About birds: [https://www.youtube.com/watch?v=8vL\\_2rF8JHU](https://www.youtube.com/watch?v=8vL_2rF8JHU)
- About water birds: <https://www.youtube.com/watch?v=yZpqZmfwwv4>
- List of books about birds:  
[https://www.goodreads.com/list/show/23858.Books\\_About\\_Birds](https://www.goodreads.com/list/show/23858.Books_About_Birds)
- Forest Birdsong: [https://www.youtube.com/watch?v=Qm846KdZN\\_c](https://www.youtube.com/watch?v=Qm846KdZN_c)
- Poster contains birds: <https://gizmodo.com/this-gorgeous-poster-contains-every-single-bird-youll-s-1739660179>
- Cards about birds: <https://www.adventure-in-a-box.com/product/match-bird-pairs-printable-memory-game/>
- How to build bird box: <https://www.wildlifetrusts.org/actions/how-build-nesting-box-birds>



source image: Pixabay

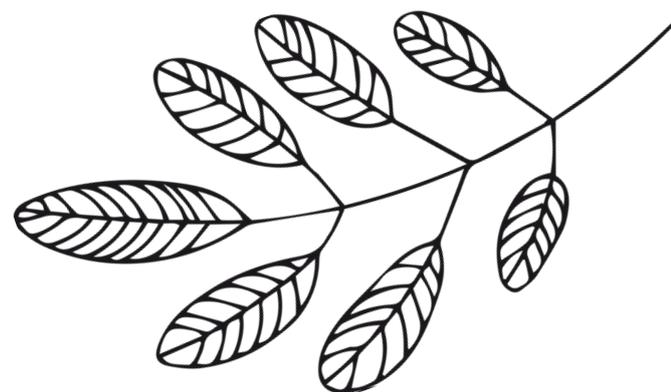
# Tasks

The educator, after short lecture about birds, together with children in groups, builds bird shelters. He gives children the task of measuring the length and width of the planks, choosing the best ones, then gluing them together, painting them, adjusting to the appropriate birds in relation to the knowledge gained at the beginning of the workshop. Finally, as part of the activity summary, the children have to match the birds together in appropriate pairs.

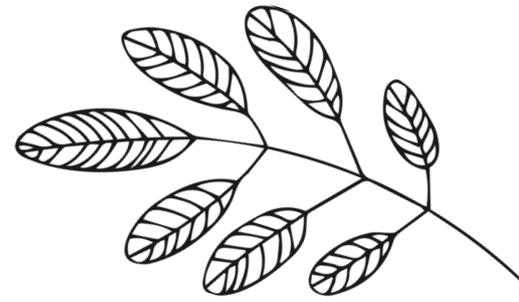
Specific tasks:

- Divide into groups of maximum 4.
- Wear apron.
- Measure the wooden elements to see if they are the right length.
- Mark out the elements of the future box with pencil and a rule or measure tape.
- Write the name of each element (panel) onto the marked out wood.
- Adjust the front panel of the box (depending which type of bird box it is).
- Glue the boards together
- While the boards are drying from the glue, choose the colour of paint the roof of the birdhouse so it become waterproof).
- Then each group publicly presents their bird box and explain what kind of bird will stay inside.
- And finally, match the birds together on the basis of the lecture given by the educator at the beginning of the activity.

An example of the matching cards that can be used:



Source: <https://www.adventure-in-a-box.com/product/match-bird-pairs-printable-memory-game/>



# Safe and security checklist

The educator must carry out the class according to the health and safety rules in force, check the attendance list and consider children requiring special care / or assistance from the assistant - if any - in the classroom or outdoor.

In particular, educator should:

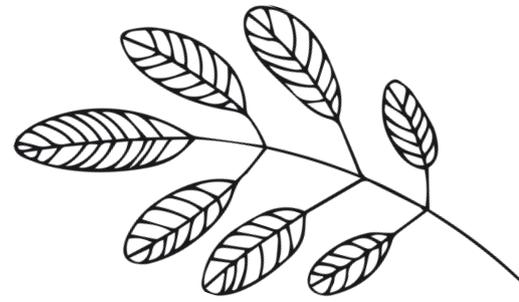
- check National and Regional Law
- check school guidelines for outdoor activity (if this activity will be outdoor)
- check for allergy sufferers in the group (for example allergies to glue)
- check for individuals who need specific assistance
- check the availability of an emergency box

# Impact on external stakeholders

The construction of bird shelters will have an impact on the local community. The boxes can be fixed in the school's tree garden or in the local park - parents and teachers can be involved in fixing the boxes on the trees.

The bird boxes made by children will have an impact on the ecosystem, on the reproduction of local birds and on nature in general.

# Project's partners



**Générations.bio**

## **Générations.Bio (Belgium)**

Web: [www.fermebiodupetitsart.be](http://www.fermebiodupetitsart.be)



## **LogoPsyCom (Belgium)**

Web: [www.logopsycom.com](http://www.logopsycom.com)

Facebook: @Logopsycom



## **The Polish Farm Advisory and Training Centre (Poland)**

Web: [www.farm-advisory.eu](http://www.farm-advisory.eu)

Facebook: @PolishFarmAdvisory



## **EDU lab (Italy)**

Web: [www.edulabnet.it](http://www.edulabnet.it)

Facebook: @edulabnet



## **Ed-consult (Denmark)**

Web: [www.ed-consult.dk](http://www.ed-consult.dk)

Facebook: @benji.leinenbach



## **C.I.P. Citizens In Power (Cyprus)**

Web: [www.citizensinpower.org](http://www.citizensinpower.org)

Facebook: @citizensinpower



## **Trànsit Projectes (Spain)**

Web: [www.transit.es](http://www.transit.es)

Facebook: @MakingProjectsCEPS, @TransitProjectes