

Look around your school or neighbourhood – do you see a space that could use some love? Maybe it's a neglected garden, a patch of weeds, or an area that's missing signs of wildlife. Your mission is to encourage native species back into the space by creating habitat that supports them!

## HUMAN IMPACTS ON NATURE

There's no denying it – humans have changed the Earth in major ways. From roads and cities to farms and factories, we've reshaped the land to meet our needs. While some of these changes can't be undone, we can take steps to fix or even improve damaged environments. Land restoration is like hitting the reset button on an ecosystem. It can include:

- Planting native trees and plants.
- Removing harmful invasive species.
- Creating habitat features for wildlife.
- Managing soil and water quality.

**Before starting a restoration or reclamation project, professionals ask themselves three questions:**

1. What did this land look like before?
2. What does it look like now?
3. What can it become in the future?

That last question is especially important, because restoration isn't just about making the environment go back to the way it was. As our climate changes, species that thrived in an ecosystem in the past might not do so well there in the future. That's why restoration focuses on creating spaces that will remain healthy and sustainable long-term.

## HOW CAN YOU HELP?

Be a part of our Thriving Spaces initiative by doing one of the following eco-actions to support your local wildlife population and raise awareness for native species protection in your community.

### WILDFLOWER SEED BOMBS



Help your community create food sources for pollinators like bees & butterflies

### BIRD NEST BOX



Provide safe nesting spaces for birds to raise their young

### INVASIVE SPECIES CONTROL



Get rid of invasive species and teach others how to identify them

Select a project to jump to the instruction page.

We'll help you plan your steps! Use the next page to share your Final Results.

Once you've completed your project, answer the questions below, and submit your photos and volunteer hours to [erteens@earthrangers.com](mailto:erteens@earthrangers.com).

## Reflection Questions

1. What was your experience like with this project?
2. Did you run into any challenges? How did you solve them?
3. What is something you are proud of accomplishing?
4. What is some advice you would share with another teen doing this project?

## Volunteer Hours

If you need high school volunteer hours, be sure to:

- Keep track of your hours and activities while actively working on your project (template below).
- Regularly communicate with us.
- Submit your final results and volunteer hour log by email.

ACTIVITY DESCRIPTION	DATE	# OF HOURS	PHOTO
<b>TOTAL:</b>			

## CAREER CONNECTIONS

**Enjoyed this project?** You may be interested in exploring these career paths:



### Environmental Education:

Teach and inspire others about nature through hands-on learning and experiences.



### Conservation Biology:

Study how organisms interact with their ecosystem to protect species.



### Multimedia Design:

Use your artistic skills to create engaging visuals like graphics, videos, signage, or displays.



### Marketing/Communications:

Develop strategic campaigns to deliver a message for your cause.

If you're interested in learning more about these jobs or want to connect with an expert, let us know!

## THANKS FOR HELPING OUR NATIVE WILDLIFE!

ER Teens is generously supported by



# Wildflower Seed Bombs

Help create habitat for species like wild bees and butterflies by sharing and planting native wildflower seed bombs in your community.

## To do this project:

- Create seed bombs.
- Share them with community members (neighbours, classmates, etc.) with information about the flowers and what species they help.
- Encourage everyone to place them in neglected areas where they can grow, like garden beds, planter pots or other empty areas.



## FOR THE SEED BOMBS

### What you'll need

- Mixing bowl
- Water
- Soil or compost
- Clay – Check your local art store for potter's clay or powdered clay
- Native wildflower seeds – Make sure they aren't invasive! Check your local species guide online, or ask us for help

### How to make

1. Mix the clay, soil, and seeds together.
2. Add small amounts of water to help make a sticky consistency (not goopy).
3. Mold the mixture into balls, making sure the seeds are mixed in well.
4. Allow them to dry.

Share your seed bombs and toss them in areas they can grow. Don't forget to check on the seeds for sprouts, but be patient, they could take a few weeks to germinate.

## SUPPORT SPECIES LIKE



**BUTTERFLIES**



**WILD BEES**



**HUMMINGBIRDS**

**To complete this project, answer the reflection questions in the Final Results section and email us your photos and volunteer hours!**

# Bird Nest Box

Land development often disturbs the natural habitats of animals, like their nesting areas. Building structures like bird boxes can help recreate safe spaces for cavity-nesting birds to lay their eggs and raise their chicks. Different birds have different nesting requirements, but offering a new nest space gives them more options to choose from, and can keep young birds away from harm.

## To do this project:

- Build with friends, family, or your school's eco-club.
- Install it in a safe location.
- Teach others what it's for and what species you're helping.



## FOR THE BIRD NEST BOX

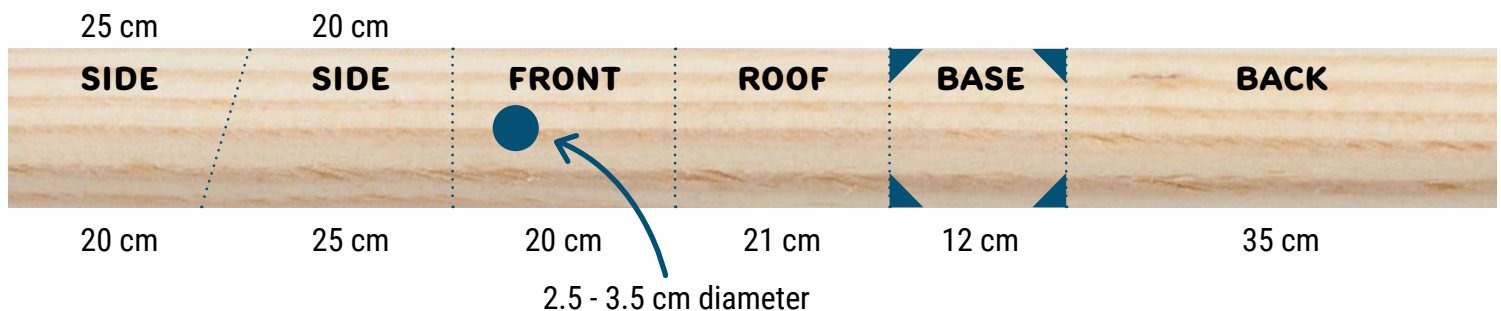
### What you'll need:

- A plank of untreated, unpainted wood at least 1.3m long
- 16 - 18 screws
- Jigsaw
- Drill
- Measuring Tape
- Pencil
- Sandpaper



Have someone that's handy with tools help with construction!

### Cut your plank of wood into the following pieces:



### Before Assembling:

- Bird boxes have key features for certain species, like different sized entrance holes. Check out [Cornell Lab's All About Birdhouses](#) to help you find the right dimensions for your local species. Cut out the circle with your jigsaw and use sandpaper to smooth the edges.
- On one side of the front piece, create shallow grooves a couple millimetres deep so the young birds can climb out like a ladder. This side will be facing the inside of the nest box.
- Snip the corners of the base or drill a few small holes for ventilation and drainage.

### How to Assemble:

1. Lay the back piece down flat and align the left side piece, with the shorter slope facing forward.
2. Attach using 2 - 3 screws through the back.
3. Attach the front and left side together with 2 - 3 screws, with the groove-side facing in.
4. Slip the base in between the front and back and attach with 2 screws on the front and back.
5. Attach the right side piece, again with the shorter slope facing forward, using 2 - 3 screws on each side.
6. Finally add the roof sloping towards the front with 4 screws (2 through each side piece) so that it overhangs the front to help rain drain off.
7. Install your bird box at least 1.5 m (5 ft) high on a post to help keep predators away.

### After Installing:

- Keep an eye on which species visit your nest box and try to snap pictures.
- After nesting season, make sure the box is unoccupied and clean it out for the next season.
- Birds have to choose their nesting spots carefully, so don't be discouraged if you don't get visitors right away. Maintain the nest box and the area around it so birds can easily access it in the future!

## SUPPORT SPECIES LIKE



**BLUEBIRDS**



**CHICKADEES**



**WARBLERS**

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Not all plants and animals that you see around you are meant to be there. Some species that are introduced to an area can cause a lot of harm if they didn't naturally evolve there. Protect the natural biodiversity of the community by learning how to identify invasive species in your area, removing them, and teaching others.

## WHAT'S THE DIFFERENCE?

NATIVE SPECIES	NON-NATIVE SPECIES	INVASIVE SPECIES
A species that naturally exists in a specific region.	A species that isn't naturally found in a specific region but was introduced.	A non-native species that disrupts the ecosystem, outcompetes native species and lacks natural predators.



### An interesting example is Periwinkle

Originally **native** to Europe, this plant was introduced to North America as a garden plant, making them a **non-native** species. They escaped from gardens to natural areas, and can smother native plant growth, making them **invasive** in Canada. They should be removed by the roots to prevent the spread.

### To do this project:

- Research invasive plants and animals in your area.
- Look for invasive plants and remove them if possible.
- Create a visual guide (infographic, pamphlet, social media posts), or show others in person how to identify these species.

### Share information like:

- ✓ Key identification features.
- ✓ Threats to native species
- ✓ How to prevent the spread



**TIP:** The **Seek** app is great for identifying species on the go using your phone camera!

## WATCH FOR SPECIES LIKE



**GARLIC MUSTARD**



**PURPLE LOOSESTRIFE**



**JAPANESE BEETLE**

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