

Project Starters: Engineering a Birdfeeder

This classroom activity starter sets the stage for an activity allowing students to design birdfeeders and test their designs to see what meets the needs of local birds.

This Earth Rangers Classroom Activity Starter will get you and your class started on your next activity. Our "buildyour-class-activity" tool will give you ideas — you take it from there!

LEARNING OBJECTIVES:

· Design a birdfeeder that meets the needs of local birds

IN THIS ACTIVITY, STUDENTS WILL:

- Observe birds around the school
- Build a bird feeder
- Explain their design choices
- Test their birdfeeder
- · Consider what worked and what didn't



GRADE LEVEL: 4-6

Set it Up

1: PICK/CREATE AN INVESTIGATION QUESTION

- What kind of design will attract more birds? Why?
- What kind of design will last the longest? Why?
- What kind of design is best for our climate? Why?
- How can you improve on a typical birdfeeder?

2: OBSERVATION TIME

Give students time to observe birds around the school and think about the needs of the birds.

Birds Canada's Photo Identification Guide can help you identify the common birds in your region at any time of the year.

3: BUILD BIRDFEEDERS

Give students the opportunity to build their birdhouses and to explain their choices of:

- Format
- Food
- Location

4: DATA COLLECTION

Select a means for the students to collect data about their birdfeeders to determine what worked and what didn't, for example through:

- Data-collection sheets
- Observation journals
- Photos or videos

5: SHARING RESULTS

Students share their results with each other and discuss what worked and what didn't. They then brainstorm and suggest ways to improve their birdfeeders.

Start it Up

To help you get started, here are some ideas for building and setting up a birdfeeder:

6: PICK BIRDFEEDER MATERIALS

- From a nature walk (e.g. pinecone feeders)
- From other natural sources (e.g. straw, wooden birdhouses)
- From recycled sources (e.g. leftover pumpkin feeders, clean bottles/cartons/crates)
- From recyclable materials (e.g. aluminum foil trays)

7: PICK A FOOD SOURCE

- Birdseed (Check for allergens)
- Suet
- Liquid nectar

8: PICK A LOCATION

- Front or back yard of school
- Under a tree
- Near a source of water
- Other:

To help you give your students direction, below are some resources for general information:

Nature Canada offers some tips on how to keep birds safe at birdfeeders including which types of food are appropriate.

The Canadian Wildlife federation gives some information on how to provide a backyard feeding station for birds.

Keep it Up

9: ADD COMMUNITY

- Invite parents/guardians to come and see the bird feeders on display.
- Invite an Elder to share stories and traditional knowledge about birds.
- Share about the birdfeeders with the larger school community
- Consider participating in Project Feederwatch, an initiative to count birds across the country

7: PICK A FOOD SOURCE

- Vanessa helps the wood thrush
- Saving songbirds
- Restoring Toronto's meadow habitats

11: ADD AN EARTH RANGERS MISSION FOR HOME

Mission: It's For the Birds

Resources

Photo Identification Guide (Birds Canada) https://naturecounts.ca/apps/checklist/index.jsp

Keeping Birds Safe at your Birdfeeder (Nature Canada, 2018) https://naturecanada.ca/discover-nature/lifestyle/keeping-birds-safe-at-your-feeder/

Provide a backyard feeding station for birds (Canada Wildlife Federation, 2018) https://cwf-fcf.org/en/resources/DIY/habitat-projects/map-your-backyard/provide-abackyard-feeding.html

Project Feederwatch (Birds Canada)

https://www.birdscanada.org/you-can-help/project-feederwatch