

# Upcycled Birdfeeders

An Assembly Line Experience for Grades 3-5

## Overview

Elementary learners will discover the impact of re-using everyday recyclable materials to help feed New Brunswick's feathered friends – all year round! Through the production of milk carton birdfeeders, students will also gain an experience of what it's like to work on an assembly line and its benefits to the manufacturing industry!

## NB Curricular Connections

### 3 - 5 Learning Areas

#### English Language Arts:

- *Strand:* Interactions - *Big Idea:* Exchanges – *Skill Descriptor:* Respond personally to presentations, oral stories, and a variety of multi-modal text.

#### Mathematics:

- *Strand:* Shape and Space - *Big Idea:* Measurement

#### Personal Wellness:

- *Strand:* Career Connected Learning - *Big Idea:* Experiencing Potential Career Pathways - *Skill Descriptor:* Engage in frequent and ongoing career connected experiential learning to learn about preferred career pathways and develop personal competencies.

#### Science:

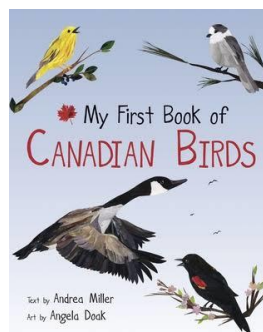
- *Strand:* Learning and Living Sustainably - *Big Idea:* Responsible and Sustainable Application

## What You'll Need

- Book – *My First Book of Canadian Birds* by: Andrea Miller (available on Sora)
- Creation & Delegation Page – 1 per learner, see below
- Inspiration Posters – see below
- Pieces of construction paper per small group of 3-4
- scissors
- pencils
- Tapes – making, duct, and clear
- mini popsicle sticks or skewers
- multiple tapes – making, duct, and clear
- small milk cartons – rinsed and cleaned – 1 per learner
- rulers
- hole punch
- string or yarn
- permanent markers – 1 per group
- bird seed
- ¼ cup measuring cup, 1 per group
- Recording Sheet – 1 per learner, see below
- adhesive foam stickers (optional – for decorating)
- paint markers (optional – for decorating)

## Instructions

1. Read Aloud – My First Book of Canadian Birds: Before reading, ask: “What kinds of birds are we familiar with?” Generate a list on chart paper. Then, read the book. Go back to the chart paper and check off any that were also mentioned in the book.
2. NB Birds: Using their own background knowledge and experience, have learners now generate a list of New Brunswick birds, particularly the species that would most frequent their school surroundings. Circle any of these birds from your previous list. Go on a School Grounds Walk to identify ideal spots to place birdfeeders, as well as any signs of birds presently living near school spaces. If needing additional information, go to Nature NB’s Educator Portal (sign up is free) and utilize their New Brunswick Bird education packet for educators - <https://www.naturenb.ca/education/> OR if completing this activity in the wintertime, check out this comprehensive list: <https://nbwinter.gbnature.com/>.
3. Upcycling Birdhouse Creativity Session: Discuss: *Why should we use milk cartons?* Allow learners to share their responses and then watch this short video (1:11) – [Introduction to Upcycling](#). Place learners into small groups of 3-4. They will be responsible for creating 3-4 identical birdhouses (1 per learner). Allow learners to take time examining the materials that they will be using. Place the Inspiration Posters in the 4 Corners of your classroom and have groups walk around and discuss these designs. Then, using the Creation and Delegation Printable (see below) have learners begin to sketch out their idea for an upcycled birdfeeder. \*Do not fill out the Delegation part of the page just yet.\*
4. Delegation Experiment: Give each group member 1 piece of construction, 1 pair of scissors, and access to either tape or a stapler. Without giving a whole lot of instruction, simply ask each group to produce a paper chain with at least 10 loops in the 3 minutes that you time them. GO! (Note: you will find that most members will individually cut strips, individually tape/staple them, and then eventually add them together.) The second time: assign a job to each member before starting. Member #1 folds that construction paper in a paper fan to create lines for the cutter. Member #2 cuts the folded paper in much more equal sized strips. Member #3 loops the paper and Member #4 staples or cuts the added loops on to the chain. (May have to adapt if smaller numbers in groups). Re-time for 3 minutes. Have learners reflect on the Paper Chain creations. Discuss: *What was the difference between the first paper chain and the second paper chain? Delegation is when a task is assigned to someone. Manufacturing companies delegate tasks in an assembly line. When it comes to our upcycled birdfeeders, how can we utilize this idea of an assembly line so we can maximize our time AND use the strengths of the members of our group. What New Brunswick companies do we know that use assembly lines?* Allow



learners to respond. (Examples: food manufacturing, fisheries, construction, farming, etc.) Show a New Brunswick company example of an assembly line (with people and machines) in the PowerPoint of [From Farm to Fry Learning Activity](#) for Grades 3-5. Brainstorm possible delegation tasks on a whiteboard before having groups fill out the Delegation portion of their Creation and Delegation sheet. (cutting hole, attaching perch, hole puncher, tie string, add decorative stickers, fill with birdseed etc.) Remind them that once a person finishes their task, they can always chip in, cheer on, and be a “runner” for extra materials needed, once they have cleaned up from their specific task.

5. [Upcycled Birdfeeder Assembly Line Production](#): Before any groups begin their designs, have students open the top of the milk cartons and ensure that they are dry and completely milk-free. Using the  $\frac{1}{4}$  measuring cups, have students put birdseed into their vessel and using the permanent markers, mark a line to the top of the seed. They can then return the bird seed to the original container or place in a baggie for when they need to fill it, when their design is complete. This is to ensure that their design will not include cutting that would not allow the birdfeeder to at least hold  $\frac{1}{4}$  cup of birdseed. This will also help to see if and how much birds are using the birdfeeders after putting them up. Encourage learners to use rulers if cutting out square or rectangular shapes to maintain consistency. Circulate and support learners as they assembly line their upcycled birdfeeder designs. Once the design is complete, the group can decorate their designs with paint markers, foam stickers or other materials that will stand up to outdoor elements.
6. [Data Collection & Best Design](#): Tie your upcycled birdfeeders to trees, with string or yarn, in your pre-determined school ground location. Then, for 5 consecutive school days, visit your birdfeeders to determine if birds are indeed, eating from them. Have learners use their own individual recording sheet (see below) and keep  $\frac{1}{4}$  cup of birdseed in their birdfeeders to record their own data. At the end of 5 days, have learners examine their data. Discuss: *What were some of the successes of your group’s upcycled birdfeeder design? What were some challenges?* Using the data, as a class, can you identify a “best design”? Or might it be some features of one, and another feature of another group’s design that need to be combined? If time permits, re-design and repeat.

### Extension Ideas

- Best Upcycled Birdfeeder Design – Set up another assembly line to create a few more for another space on your school grounds or for a local act of kindness (nursing home, nature trail, daycare, senior complex, etc.)
- Set up a Trail Cam to see if you can catch your Birds on camera!
- Problem Solve – Is the wind or weather causing your birdfeeders to tip over? Are other animals trying to eat the birdseed? What are some solutions that we could try to

prevent our birdseed being wasted? (Tarp, noise makers, new location, waterproof material underneath the feeders, etc.)

- Creative writing – create stories about the birds using your upcycled birdfeeders!
- Upcycled Art – what else might you be able to upcycle in your classroom or school? Create posters to show the beauty of upcycling to spread the word!

## Reflection Activity

Please see the attached PDF for several choices on how you and your learners can reflect upon today's activity.

## Acknowledgements

1. NB Nature: Educator's Portal -

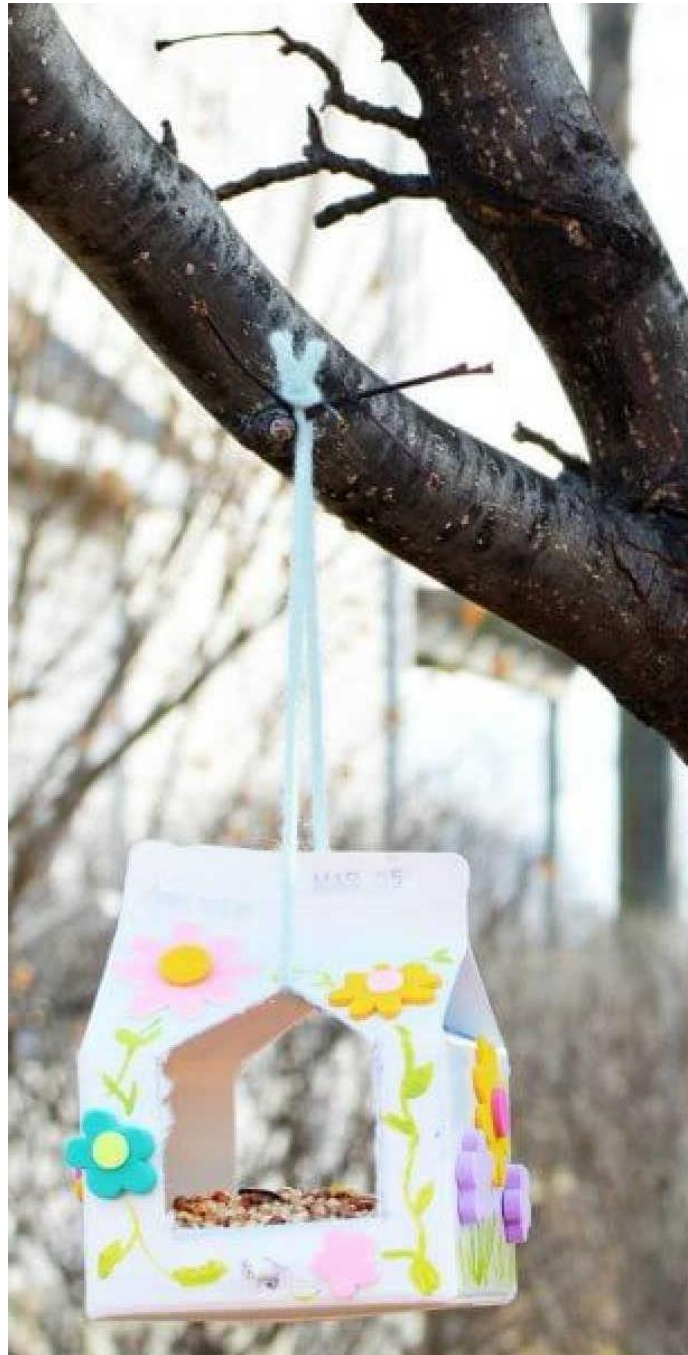
<https://www.naturenb.ca/education/#:~:text=Nature%20Education%20Programs,a%20workshop%20in%20the%20community>, 2025.

2. Belliveau, Gilles: NB Winter Bird List: <https://nbwinter.gbnature.com/>, 2025.

3. Introduction to Upcycling, MetroParks Toldeo:

<https://www.youtube.com/watch?v=tvnyr1vKOuI>, 2021.

4. One Crazy Mom: Photo of birdfeeder - <https://www.onecrazymom.com/how-to-make-a-homemade-bird-feeder-out-of-milk-cartons/>, 2024.















**Centre of  
Excellence**  
SKILLED TRADES &  
MANUFACTURING

## Creation and Delegation

Name(s): \_\_\_\_\_

Our Upcycled Birdfeeder Design:

Materials We'll Need:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Delegation:

Name of Group Member	Task(s):

## Upcycled Birdfeeder Recording Sheet

Name: \_\_\_\_\_

	Day 1	Day 2	Day 3	Day 4	Day 5
<b>Was there <math>\frac{1}{4}</math> cup of birdseed in each of our feeders?</b> <small>(Record about how much you also had to refill if not at <math>\frac{1}{4}</math> cup.)</small>					
<b>Was there any evidence of birds near our feeders?</b> <small>(Droppings, tracks, feathers, etc.)</small>					
<b>Any additional information that may have affected our feeders?</b> <small>(Weather, wind, wildlife, people, etc.)</small>					

What did I learn about our upcycled birdfeeders over this 5-day data period?

---



---



---



---