



Waste Reduction Guide for Schools



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Introduction

Canadians produce more waste per capita than any other country: 2.7 kilograms per person per day. Cumulatively, Canadians produce 31 million tonnes of waste annually. Recycling is often the first solution that comes to people's minds when considering how to reduce waste going to landfills. Recycling has many benefits, but waste reduction is a four-step process that requires individuals to rethink, reduce, reuse, and recycle.

A holistic waste reduction program encourages individuals to focus on rethinking, reducing, and reusing before recycling. Starting with **rethinking**, individuals consider the amount of waste they produce, the resources that went into making the

products they are consuming, and the ecological impacts of the resources required to make the products and packaging that they dispose of. They consider ways to minimize the ecological impacts of the products they purchase. **Reducing** encourages individuals to only buy amounts of products that they need with limited packaging. **Reusing** encourages individuals to repair items, purchase from thrift stores, donate, and come up with creative uses for items that would otherwise be thrown away.

The final step in a waste reduction program is recycling, which diverts waste from local landfills with various benefits. **Recycling** increases the life

cycle of materials and reduces the energy required to manufacture new materials. A recycling program that includes composting of organic waste also reduces the greenhouse gas emissions of landfills. When organic waste decomposes anaerobically in landfills, it produces greenhouse gases, including carbon dioxide and methane. Greenhouse gas emissions are reduced when organic materials are diverted from landfills and composted.

This guide provides recommendations to help classroom teachers and school administrators set up a school-wide waste reduction program. It presents information for how to encourage students to first rethink, reduce, and reuse, and how to implement a school-wide recycling program.



Form a Student Waste Reduction Team (SWRT)

The Student Waste Reduction Team (SWRT) will be the school's waste reduction champion, responsible for sharing waste reduction information with other classrooms and motivating others in the school community to reduce their waste. The SWRT must be highly motivated to encourage the school community to reduce its waste. The SWRT can be made up of a whole class if a teacher is interested in dedicating class time to the project. Grade 4 classes are especially well-suited to lead this program due to curriculum connections to Waste in Our World. Alternatively, the SWRT can be made up of environmentally focused students who are able to meet during lunch times to plan events.

Collect Baseline Data

The first step to rolling out a waste reduction program is to collect baseline data to determine the amounts and types of waste that the school sends to the local landfill or recycling centre. This baseline data can also be used to later assess the efficacy of the program. The SWRT should record the various forms of recycling and waste disposal occurring at the school by measuring the total weight of each type of material recycled or disposed of over the period of one week. If a scale is unavailable, measuring the number of bags or bins will be sufficient. To determine the amount of waste going to landfills, the SWRT could request that the janitor record the number of bags thrown out in a week.

Survey the School Community About Recyclable and Non-Recyclable Items

The SWRT should survey the students and teachers to find out if they know which items are recyclable and non-recyclable in the local area. An example survey can be found in the Resources section of this guide.

Contact LICA for a Presentation on Waste Reduction – Rethink, Reduce, and Reuse First; Recycle Last

LICA can present on the benefits of reducing waste through (firstly) rethinking, reducing, reusing, and (lastly) recycling. LICA will work with the SWRT to analyze the school's baseline data and help them to think of ways to rethink, reduce, reuse, and recycle:

Rethink: SWRT researches the ecological impact of the resources that go into some of the products and packaging that the school disposes of. They investigate products with low ecological impacts.

Reduce: SWRT researches items that can be brought for lunch that have limited packaging.

Reuse: SWRT researches example items that can be repaired, purchased from thrift stores, donated, and come up with creative uses for items that would otherwise be thrown away.

Recycle: SWRT summarizes some items found in the garbage that could otherwise have been recycled.

Set Goals

Set goals for waste reduction. Consider a goal for overall reduction of materials going to landfill and a goal for increased recycling.



Involve the Local Municipal Waste Collection Department

Contact the local municipal waste collection department to arrange a presentation for the SWRT on waste streams that can be recycled locally. The local municipal waste collection department can also assist in arranging a tour of the local recycling centre and landfill with the SWRT. The SWRT can take photos of local recycling and waste facilities to share with other classrooms.



SWRT Educates the School Community on Waste Reduction

The SWRT is responsible for presenting the waste analysis information and the goals of the waste reduction program to other classes in the school. They present information that they learned from LICA and the Local Municipal Waste Collection Department during their tour of the recycling facility. They also encourage proper sorting of recycling, using information learned from the local recycling centre and landfill. They also encourage proper sorting of recycling, explaining which items people often incorrectly sorted as recyclable or non-recyclable on the surveys.

SWRT Incentivizes Students to Reduce Waste

The SWRT can come up with their own incentives to motivate other classes to participate in the waste reduction program. An example incentive could be to have a zero-waste lunch day once a month where all students are encouraged to bring a zero-waste lunch with reusable containers and no single-use items. Teachers in the school could tally the number of students in their class that have succeeded in bringing a zero-waste lunch. Each classroom's totals could be displayed on a bulletin board.

Register for the Alberta Depot's School Recycling program

The [Alberta Depot School Recycling Program](#) provides schools with free infrastructure items and fun teaching aids that are compatible with the fourth-grade recycling curriculum.



Funding

Acquire funding and purchase recycling bins. Funding can be acquired through fundraising or through grants. [Alberta Council for Education](#) provides a summary of grants available. Some noteworthy funding opportunities include the [Climate and Environment Student Action Challenge](#), [Caring for our Watersheds](#), and [Alberta Depot School Recycling program](#). Contact LICA for more information about grant opportunities.

Parent Involvement

Meet with the School Council to seek support from parent volunteers. Parent volunteers will be responsible for taking the sorted bins full of recycling items to the local recycling depot. A schedule will need to be set up to ensure that the bins are emptied prior to getting to capacity.

Measure Success: Collect and Evaluate Data

Collect data on the school's waste reduction at various times throughout the program to measure progress towards the goals. Record the various forms of recycling and waste disposal occurring and measure the total weight of each material recycled over the period of one week. Compare these amounts to the baseline data.

Survey the school community again to see what items they think can be recycled. Compare the results to the survey that they took at the beginning of the campaign. Hopefully, by the conclusion of the campaign, the school community gets more answers right than they did on the first survey.



Share Success Stories

Share the evaluated data with the entire school community through letters or bulletin board updates. Students involved can also present the results at a year-end assembly so parents can hear about the results and be encouraged to reduce their waste. Students may also want to share their success stories with other schools. If a Grade 4 classroom at one school leads the waste reduction project, they could request to do a presentation to a grade 3 classroom at another school to encourage them to do a similar project next year.

Celebrate

Conclude the year with a celebration or reward for students involved. Environmental stewardship can be a lot of work. Giving students something to anticipate and enjoy will continue to motivate them in the following years and show that their work is appreciated.

Resources

- Recyclable or Non-Recyclable Survey

What Items are Recyclable or Non-Recyclable at the MD of Bonnyville Transfer Stations?

Item	Recyclable	Non-Recyclable (Garbage)
	(Check one)	
Plastic: Margarine and large yogurt containers		
Plastic: Single-use plastics (straws, cutlery, cup lids)		
Plastic: Clamshells for berries, salad, baked goods		
Plastic: Detergent, condiment, shampoo bottles		
Plastic: Bags, film, wraps, plant pots		
Plastic: Flexible packaging		
Plastic: Hard containers, tubs, and bottles		
Plastic: Lids and caps		
Plastic: Ice cream pails		
Plastic: Single serving yogurt containers		
Plastic: Peanut butter container that is clean		
Plastic: Peanut butter container with some peanut butter inside		
Tin cans		
Compost: Food scraps		
Compost: Grass and leaves		
Cardboard: Clean and dry		
Cardboard: Greasy pizza box		
Glass		
Mattress		
Batteries		
Paper		

ANSWER KEY: What Items are Recyclable or Non-Recyclable at the MD of Bonnyville Transfer Stations?

Item	Recyclable	Non-Recyclable (Garbage)
	(Check one)	
Plastic: Margarine and large yogurt containers	✓	
Plastic: Single-use plastics (straws, cutlery, cup lids)		✓
Plastic: Clamshells for berries, salad, baked goods		✓
Plastic: Detergent, condiment, shampoo bottles	✓	
Plastic: Bags, film, wraps, plant pots		✓
Plastic: Flexible packaging		✓
Plastic: Hard containers, tubs, and bottles	✓	
Plastic: Lids and caps		✓
Plastic: Ice cream pails	✓	
Plastic: Single serving yogurt containers		✓
Plastic: Peanut butter container that is clean	✓	
Plastic: Peanut butter container with some peanut butter inside		✓
Tin cans	✓	
Compost: Food scraps		✓
Compost: Grass and leaves	✓	
Cardboard: Clean and dry	✓	
Cardboard: Greasy pizza box		✓
Glass	✓	
Mattress	✓	
Batteries	✓	
Paper	✓	



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