

Food for thought: finding creative solutions for food waste

Summary

In this lesson, students are introduced to the problem of food waste at the retail level. They will watch a video about how local stores and food banks are tackling food waste in Nova Scotia. Following a group discussion, students will develop questions to interview a “top chef” in their life about strategies for reducing food waste. Students will also create a wasteless menu, brainstorming ways to make tasty meals with minimal to no waste.

Objective

Students gain a deeper understanding of what causes food waste at the retail level. They learn about tactics and strategies that stores and food banks use to reduce food waste and what consumers can do to help.

PRE-ACTIVITY

WASTE NOT NEWS EPISODE 2: FOOD WASTE AT THE RETAIL LEVEL

Directions: Students watch a video about food waste at the retail level. Before the video, students can discuss how food may be wasted in stores using the sample questions below. **Appendix 1**, which shows the percentage of food waste along the food chain, can also be shared for discussion purposes.

Pre-video sample questions

- What types of food do you think are most commonly wasted in grocery stores?
- What do you think are some of the challenges for stores when it comes to food waste?
- Do you know of any strategies a grocery store may have to reduce food waste?
(Teacher support: marking down produce, arranging products by expiry dates on store shelves, donating product to food banks)

VIDEO

Waste Not News: Rude to Our Food

Ep.2: Food Waste at the Retail Level

[Link to Video](#)

MATERIALS

Computer, Projector, Speaker
Duration: 6:38 minutes



MAIN LEARNING OUTCOME

SOCIAL STUDIES

Learners will implement age-appropriate actions that demonstrate responsibility as global citizens.

SKILLS

IMPLEMENT

Select: Locate several relevant and dependable details to support an answer.

Plan: Identify steps to solve the problem. Execute the steps, modifying as necessary.

Evaluate: Review steps and results from an investigation or problem solving. Reflect on varying perspectives and alternative solutions or findings. Identify potential new problems and/or issues.

Apply: Carry out or complete a procedure/technique.

ANALYSE

Gather and select appropriate information. Begin to reflect on accuracy, validity and importance, of the information. Communicate findings.

CROSS-CURRICULAR LINKS

ENGLISH LANGUAGE ARTS

LISTENING AND SPEAKING

Learners will communicate effectively and clearly respecting cultural contexts.

Learners will use writing and other representations to explore, clarify and reflect upon thoughts and experiences.

After the video ends, begin a group discussion with the class.



DURATION
30–60 minutes

MATERIALS
Writing tools
Art supplies
Paper
Computer (Optional)

DURATION
20–30 minutes

MATERIALS
Art supplies
Paper

Post-video sample questions

- How does Local Source strive to reduce food waste?
- Did the video change the way you think about the food waste in stores? If so, how?
- Can you think of ways to reduce food waste when planning meals?
- Does the person who provides the food in your home use a grocery list?
- What are some barriers to using a list? How can we reduce those barriers?
- What can you do to prevent food waste?

ACTIVITY

INTERVIEW A “TOP CHEF”

Directions: Students interview an adult in their life who makes food for them (example: a grandparent, parent, older sibling, breakfast program volunteer, cafeteria worker, etc.) The students begin by writing their own interview questions, which they then use to conduct interviews.



Sample questions

- What types of food go to waste most often in your kitchen? Why?
- What types of food never go to waste? Why?
- Do you have any strategies to keep food from going to waste?
- What is your favourite way to use leftovers?

After the interviews are complete, students can present their findings to the class. If certain types of food are commonly wasted, students can research and discuss possible solutions and publish their tips as a poster that can be shared within the school community or brought home.

POST ACTIVITY

CREATE A WASTELESS MENU

Directions: Can you eat for a day without creating any food waste? Students create a dream menu for the day (breakfast, lunch and dinner) using only 10 grocery items.

Sample questions

- What items on your grocery list will expire quickly?
- What will need to be repurposed later?
- What additional meals can be made from your leftover food or groceries? Be creative with any items that you would normally compost (can you find a use for apple peels, cores or banana peels?)

Optional/extended learning activity

BE A DATE LABEL DETECTIVE

Directions: Research the different date labelling that is commonly used for food in Canada, including 'best before', 'packaged on', 'use by' and 'sell by'.

Sample questions

- What surprised you about the different label definitions and their uses?
- How can confusion around this terminology lead to food waste?
- Can you come up with less confusing terminology or improve the current labelling to help solve this problem?

See **Appendix 2** for a helpful resource on understanding food date labels.

Assessment

Formative

Evaluate student comprehension of the positive effects of reducing food waste through class discussions and passively monitoring group conversations.



RESOURCES

Visit the Government of Canada website.

inspection.canada.ca/food-label-requirements/labelling/consumers/eng/1400426541985/1400455563893



Divert NS is a not-for-profit organization championing recycling in Nova Scotia. For over 25 years, we've helped build a culture of recycling through environmental stewardship, education, and innovation. We work in collaboration with government, industry, and academia to divert waste-resources from landfill, and we partner with municipalities to deliver education and awareness programs to schools, businesses, and community groups. Divert NS also works to develop stewardship agreements and funds innovative research and development initiatives.

Toll-free 1.877.313.7732 • info@divertns.ca • divertNS.ca



Appendix 1

NATIONAL ZERO WASTE COUNCIL: FOOD WASTE GRAPHIC



Source: The Avoidable Crisis of Food Waste, Value Chain Management International, 2019.

Source

www.nzwc.ca/focus-areas/food/issue/Pages/default.aspx



BEST BEFORE AND EXPIRY DATES



What's the deal with best before dates?

- Manufacturers can put unrealistic dates
- There are no strong government guidelines
- Many of us think best before dates are the same as expiration dates



What is a Best Before Date?

- Estimate of the best quality or freshness of a food item
- Best Before dates don't tell us when the food is spoiled



Did you know that once the package is opened, the best before date is no longer useful?

What is an Expiry Date?

Only 5 food items have an expiry date in Canada



Formulated liquid diets



Nutritional supplements



Low energy food from the Pharmacist



Baby formula



Meal replacements

For additional information about Canadian food labels, please visit secondharvest.ca.

FOOD CONSUMPTION TIMETABLE



In Canada, only 5 foods have an expiry date—meal replacements, nutritional supplements, infant formula, liquid diets and physician prescribed low-energy diets. All other foods display a best before date. Best before dates are an indicator of food quality, not food safety, meaning that food can be consumed past the best before date. This confusion continues to be a major source of avoidable food waste in Canada. This guide helps you clarify when food can be consumed past the best before date. Always use your senses to evaluate food quality if food is past the best before date. Food must be stored properly and unopened for the recommendations below to apply.

BB = Best Before Date

FOOD CATEGORY	ITEMS	CONSUME BY
PRODUCE 	Perishable fresh fruits and vegetables	No visible rot, mold, or bio-degrading smell
	Shelf stable canned fruits and vegetables, pickles, sauces, or pastes	1 year past BB
DAIRY 	Perishable milk (including dairy alternatives), butter, yogurt, cheese, eggs, ice cream, sour cream	2 weeks past BB IF FROZEN 2-3 months past BB
	Shelf stable evaporated, powdered, or milk alternatives	1 year past BB
	Shelf stable baby formula, supplemental beverages (i.e.: Ensure)	Expiry date
MEAT & FISH / EGGS & SOY / LEGUMES / NUT PRODUCTS & NUTS 	Raw meat and fish	BB or IF FROZEN : Beef, lamb, pork, whole poultry: 1 year past BB Poultry pieces: 6 months past BB Ground meat: 2-3 months past BB Fish: 2-6 months past BB
	Cooked luncheon meats, tofu, eggs	1 week past BB
	Shelf stable canned meat, fish, beans, chickpeas, nuts, nut butter, peanut butter, seeds, spam	1 year past BB
BREAD / CRACKERS & CEREAL / GRAIN 	Perishable bread, buns, bagels, pitas, tortillas, flat bread, na'an, matzah	No visible rot, mold, or bio-degrading smell
	Dry, shelf stable cereal, crackers, flour, oats, pasta, rice, quinoa, meals or sides, energy bars	1 year past BB
	Meal replacement or supplement bars	Expiry date
BAKED GOODS / SNACKS / DESSERTS 	Perishable cakes, cookies, pies, danishes, chocolate, pudding	72 hours past BB IF FROZEN 1 month past BB
	Shelf stable cookies, chips, popcorn, bagged snacks, snack cakes, granola bars	1 year past BB
PREPARED 	Pre-cooked or ready-to-eat meals; deli salads, pizza, sandwiches	72 hours past BB IF FROZEN 1 month past BB
	Frozen dinners, microwavable meals	1 year past BB
	Shelf stable canned soups, stews, meals	1 year past BB
	Shelf stable baby food	1 year past BB
CONDIMENTS 	Frozen sauces, gravies	3 months past BB
	Shelf stable mustard, relish, ketchup, jam, margarine, mayonnaise, oil, salad dressing, vinegars, spices, sauces, toppings	1 year past BB
BEVERAGES 	Juice, water, coconut water	3-6 months past BB
	Other drinks; coffee, tea, sport or energy drinks, crystals	3-6 months past BB

Sources: Canadian Food Inspection Agency (CFIA) and Toronto Public Health.