

## GRADE 6 LEARNING EXPERIENCE

# Single-Use Plastic: From Producer to “Pro Reducer”

### Summary

Students explore “silly” and “smart” ways to package our everyday items. They have the opportunity to learn about how the Mi’kmaq traditionally transported and stored various foods and everyday items. Students explore the concept of a plastic-free grocery store; think about alternatives to single-use plastic; and make a pledge to refuse plastic.

### Objective

Students think critically about food packaging and the plastic epidemic. They learn about how the Mi’kmaq traditionally “packaged” food, which could be applied today, and learn about a new way of packaging from another culture.

### Pre-Activity

## SILLY VS. SMART PACKAGING

#### DIRECTIONS

### THINK-PAIR-SHARE

Using the Think-Pair-Share method, students will individually study the images found in **Silly Packaging (Appendix 1)**. Students can then pair up and identify areas of concern, and share their findings with the class.

#### LAUNCHING PAD QUESTIONS FOR INQUIRY BASED LEARNING

- *What do you find concerning about these photos?*
- *Why do you think these items were packaged this way?*
- *Are there other ways you think these items could be packaged to achieve the same goals?*

**TEACHER SUPPORT** — Have students write down questions they have from looking at the silly packaging, or share any stories they have from their experiences with silly or unnecessary packaging.

#### MATERIALS

Computer and Projector, Paper, Pens/pencils

**Appendix 1**  
Silly Packaging

**DURATION**  
20 mins

#### MAIN LEARNING OUTCOME

**GRADE:**

6

**SUBJECTS:**

#### English Language Arts



– Learners demonstrate a variety of ways to select and comprehend from a range of culturally diverse print and digital texts.

#### Social Studies



– Learners will compare sustainability practices between Canada and a selected country.

#### SKILLS

##### Investigate

Ask and revise questions; locate several relevant and dependable details to support an answer; organize and compare details; identify relationships, recognize represented perspectives, and communicate findings.

– 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.

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## SILLY VS. SMART PACKAGING (cont'd)

### DIRECTIONS

### GETTING TO ZERO-WASTE

Students brainstorm ways to improve packaging from a zero-waste perspective. If needed, provide some examples of natural or reusable containers: baskets, bags, wood, clay, leaves, glass bottles, beeswax cloth.

Students read an article about alternative packaging in Thailand :

#### Thailand Supermarket Ditches Plastic Packaging For Banana Leaves

[www.forbes.com/sites/trevornace/2019/03/25/thailand-supermarket-uses-banana-leaves-instead-of-plastic-packaging/#3b96075a7102](http://www.forbes.com/sites/trevornace/2019/03/25/thailand-supermarket-uses-banana-leaves-instead-of-plastic-packaging/#3b96075a7102)

(Forbes Magazine online. Author: Trevor Nace / Mar 25, 2019)

### MATERIALS

Internet to access online article and video option

### DURATION

30 mins

### MI'KMAW PERSPECTIVE

Students read **Kiju—A Story About Netukulimk** by Melody Martin-Googoo

**LINK** [www.mikmaweydebert.ca/home/wp-content/uploads/2015/06/Pg\\_156\\_159\\_DOC\\_KijuStory.pdf](http://www.mikmaweydebert.ca/home/wp-content/uploads/2015/06/Pg_156_159_DOC_KijuStory.pdf)

Have students identify the different types of packaging in the story that are zero-waste. Students can snap fingers each time the package is mentioned (e.g. cloth, jam jar, baskets, moss, bark, oil cloth).

**OPTION** Students may have more questions about the Mi'kmaw perspective. To dive deeper, watch a video on Netukulimk (*ne-du-gu-limk*)—the concept of respecting all resources and not taking more than you need.

**LINK** [youtu.be/0mYfx5Plo\\_4](https://youtu.be/0mYfx5Plo_4) (Elder Albert Marshall)  
(02:39 / Source: Unama'ki Institute of Natural Resources)

### ENGLISH LANGUAGE ARTS OPPORTUNITY

Students **summarize and synthesize** what they have read and learned about Mi'kmaw perspectives and the supermarket in Thailand. Students reflect on what they learned and write down any questions they still have.

## Activity

## ZERO-WASTE GROCERY STORE

### DIRECTIONS

### CLASS DISCUSSION

### MI'KMAW PERSPECTIVE

Learners are given a few minutes to study images in **Appendix 2** showing how the Mi'kmaq made and used baskets and other containers to carry and store many day-to-day and food items.

Have a class discussion on why this was more sustainable than methods we typically use today.

Have students think about the elders in their life, and share any ways they might package or store things differently.

### MATERIALS

Paper, Markers/  
Coloured Pencils  
Computer & Projector

### Appendix 2

Mi'kmaw  
Baskets

### DURATION

15 min

## ZERO-WASTE GROCERY STORE (cont'd)

### DIRECTIONS

## GROUP WORK

Divide the class into groups of 4 to 6 students. Each group will **choose one section** of a grocery store. They will decide what products they will sell in that section and how the packaging could be zero-waste.

Show students the **Grocery Store Floor Plan (Appendix 3)** for a list of possible store sections to choose from.

**Store sections may include but are not limited to:**

Produce	Bakery	Seafood	Meats
Cleaning supplies	Baking	Frozen foods	Dairy
Frozen Foods	Pharmacy	Pets Supplies	

Their design should include drawings, and/or written descriptions of what packaging would be used to replace the single-use plastic, bags or containers used today.

**TEACHER SUPPORT** — For a sample of what their hand-drawn floor plan could look like, see **Household Items (Appendix 4)**.

Encourage students to be creative/innovative, to think of ways that encourage sustainability and reduce waste, in keeping with **Netukulimk** (say: ne-du-gu-limk).

Use guiding questions if needed:

- What items/products are normally found in your section?
- What is made of plastic or packaged in plastic in your section?
- What alternatives can you think of to replace plastic?
- Think creatively. Are there new ways we can shop for groceries?
- Are there examples of packaging from the Kiju story that can help you with your design?

After each section is complete, students fit together the sections like a mosaic floor plan of the first plastic-free grocery store in Nova Scotia.

**OPTION** Students view images of **The Tare Shop** (Halifax) in **Appendix 4** or online; do a virtual tour of **NU zero-waste grocery store** (Ottawa); or read about other zero-waste grocery stores in Canada (ourpositiveplanet link below).

<b>LINKS</b>	<a href="http://nugrocery.com/home/take-virtual-tour/">nugrocery.com/home/take-virtual-tour/</a>	NU grocery store
	<a href="http://www.instagram.com/thetareshop/">www.instagram.com/thetareshop/</a>	The Tare Shop
	<a href="http://ourpositiveplanet.com">ourpositiveplanet.com</a>	OurPositivePlanet.com site search keyword: "grocery"

### MATERIALS

Paper, Markers or Coloured pencils

**Appendix 3**  
Grocery Store Floor Plan

**Appendix 4**  
Household Items Sample Plan

**Appendix 5**  
The Tare Shop (option)

Internet access for on-line resources (option)

**DURATION**  
30 min



### ENVIRONMENTAL EVENTS

There are many great opportunities throughout the year to highlight the 3Rs in the classroom. Check out these annual events:

<b>Waste Reduction Week</b>	October (3 <sup>rd</sup> week)	<b>Compost Awareness Week</b>	May (1 <sup>st</sup> full week)
<b>Earth Day</b>	April 22	<b>Environment Week</b>	June (1 <sup>st</sup> full week)





## WASTE REDUCTION EDUCATORS

Divert NS provides funding to municipalities to deliver waste reduction education to schools across the province. Your local waste reduction educator(s) provides the following services, and more, free of charge!

- classroom presentations
- green team set up
- advice on bins and signage
- tours of local waste facilities
- school waste audits

To find out more, visit [divertns.ca](http://divertns.ca)

## Post-Activity PLASTIC-FREE PLEDGE

### DIRECTIONS

### REFLECTION

Students individually reflect on situations where they use or are offered plastic. They are then asked to write down ways to refuse or go without plastic bags and packaging. Examples:

- I can bring my lunch in reusable containers
- I can bring my own utensils to school and refuse plastic utensils
- I can bring a reusable bag, or refuse a plastic bag
- I can stop using plastic straws
- I can fill my own drink bottle at home

Students share their reflections and pledge to one or two ways to refuse plastic at school, or when they buy something at a store.

**OPTIONS** Share your students' pledges over the school announcements or post them in the hallway. Be creative!

**MI'KMAW PERSPECTIVE** – Invite a local Mi'kmaw craftperson to visit the class as a follow-up, and teach about traditional basketmaking.

Mi'kmawey Debert Education and Outreach 1-877-892-2424, ext. 271  
[www.mikmaweydebert.ca/home/sharing-our-stories/education-and-outreach/](http://www.mikmaweydebert.ca/home/sharing-our-stories/education-and-outreach/)

## Assessment

**FORMATIVE** Evaluate students by observing their learning during brainstorm, and showing their understanding of reducing plastic waste through their grocery store section design and ideas written down during the reflection.

### MATERIALS

Paper, Pencils

### DURATION

15 min

## ABOUT DIVERT NS

Divert NS is a not-for-profit organization championing recycling in Nova Scotia. For over 20 years we've helped build a culture of recycling through environmental stewardship, education, and innovation. Divert NS operates the **Beverage Container Deposit-Refund Program** and the **Used Tire Management Program**. In addition, we work in collaboration with government,

industry, and academia to divert waste-resources from landfill. Divert NS, in partnership with municipalities, delivers 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.

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APPENDIX 1  
SINGLE-USE PLASTIC

# Silly Packaging

Discuss these images from “Pointless\_Packaging” (Instagram).

Why would these items be packaged this way? Which would you call silly or smart?  
What are alternatives to the plastic used here?

[www.instagram.com/pointless\\_packaging](http://www.instagram.com/pointless_packaging)

APPENDIX 1  
SINGLE-USE PLASTIC

## Silly Packaging (additional examples)

Discuss these images from “Pointless\_Packaging” (Instagram).

Why would these items be packaged this way? Which would you call silly or smart?  
What are alternatives to the plastic used here?

[www.instagram.com/pointless\\_packaging/](http://www.instagram.com/pointless_packaging/)



APPENDIX 2  
SINGLE-USE PLASTIC

# Mi'kmaw Baskets

Well before European contact, the Mi'kmaq used nature's bounty (grasses, roots, reeds, and wood splints) for materials to make baskets. Baskets helped them transport and store many foods and items needed for daily life. After European contact, the Mi'kmaq also made baskets to trade or sell for other goods. Throughout the 20<sup>th</sup> century, Mi'kmaw baskets were sought after by both farmers and homeowners for uses from the annual apple harvest to family picnics. Today, while the baskets are still made to be used, many are kept and collected for their beauty and craftsmanship.

Below are samples of baskets made from wood splints. Traditionally, the Mi'kmaq used Black Ash for most of their baskets. Because Black Ash is scarce today, basketmakers now use wood species like white ash, sumac, poplar, maple and cherry.



Potato Basket



Utility Basket with Cover



Gathering Basket



Fishing Creel



Hamper



Decorative Baskets with Sweetgrass Rims



Decorative "Porcupine" Basket

**Did you know....**

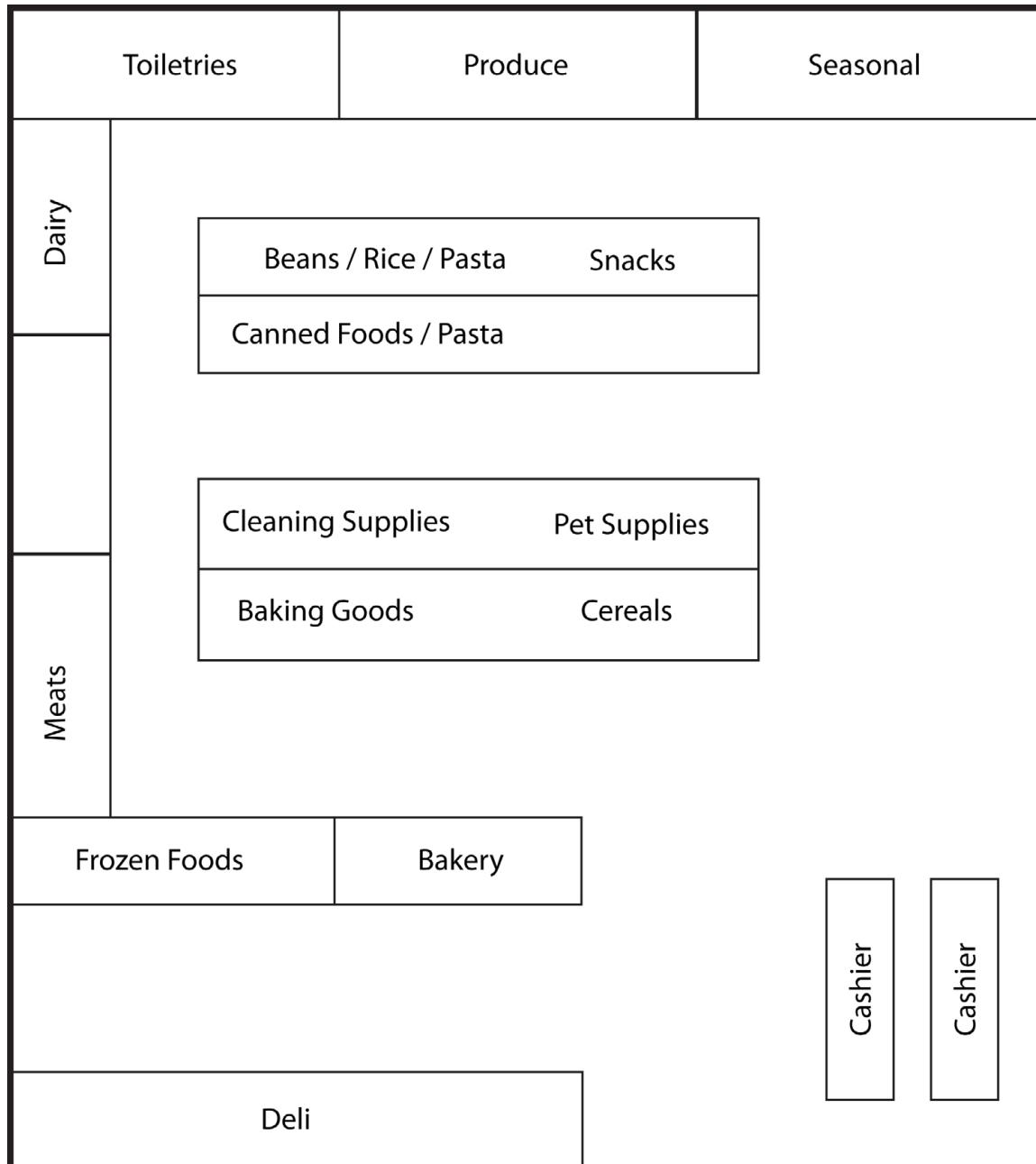
The Mi'kmaq also made containers out of other materials —like birchbark. When sewn with skill, a birchbark container could even carry water!

APPENDIX 3  
SINGLE-USE PLASTIC

# Grocery Store Floor Plans

A typical grocery store has many departments (or sections), like the ones shown here.

Choose one section of the store and draw a floor plan showing what you would sell in that department, and how the packaging could be zero-waste.

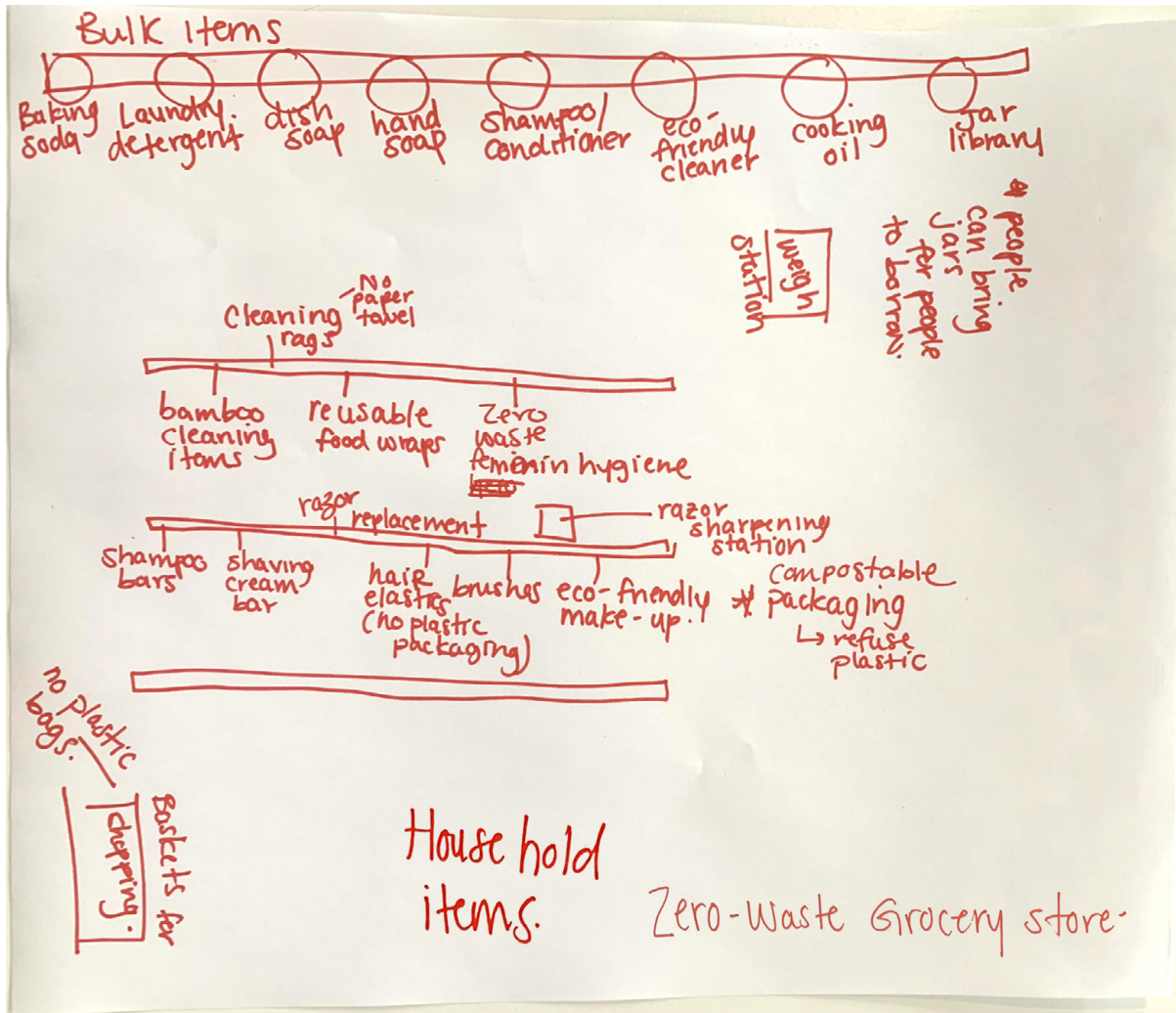




APPENDIX 4  
SINGLE-USE PLASTIC

# Household Items: Sample Floor Plan

Here is an example of a section in a zero-waste grocery store. It shows what is sold here, how it is packaged, and what containers people use to do their shopping and carry their items home.





APPENDIX 5  
SINGLE-USE PLASTIC

# The Tare Shop

Halifax, Nova Scotia

“Tare” [rhymes with “care”] is the weight of a container when it is empty.



Photos used with permission from The Tare Shop ([www.instagram.com/thetareshop/](http://www.instagram.com/thetareshop/))

For news about other zero-waste grocery stores in Canada, visit [www.ourpositiveplanet.com/](http://www.ourpositiveplanet.com/) and search for the keyword “grocery”