



SUSTAINABILITY ACTION PROJECTS

K-5 ACTIVITY GUIDE

THE GAIA PROJECT PRESENTS:

10 Engaging activities for indoor
and outdoor learning

- **GET LOCALIZED LEARNING**
- **GET STUDENT-LED ACTIONS**
- **GET INDOOR THINKING**
- **GET OUTDOOR ENTHUSIASM**



Land Acknowledgment

This document has been written and produced on the traditional and current unsundered land of the Wabanaki peoples, as covered by the Peace and Friendship treaties. This land belongs to their ancestors, their current members, and their future descendants. We are grateful for the opportunity to become allies of truth and reconciliation, sharers of knowledge, and to do our best to uplift Indigenous peoples in our work as we listen and learn about how we can contribute to decolonizing education.



The Gaia Project works in New Brunswick schools to empower students to take action on climate change through education.

contact@thegaiaproject.ca
<https://thegaiaproject.ca/en/>



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Acknowledgements

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Learning communities

Salem Elementary School
Mi'kmaq-Wolastoqey Centre
NB Environmental Network
UNB Faculty of Education
Quartermain Earth Science Centre



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INTRODUCTION

SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to achieve a better and more sustainable future for all by 2030. The aim of the 17 Global Goals is to secure a sustainable, peaceful, prosperous, and equitable life on Earth for everyone now and in the future. Each activity has an accompanying logo (or more) in the top right corner to facilitate identifying the connections to the goals.



ETUAPTMUMK AND INDIGENOUS PERSPECTIVES

Settlers have acquired significant learnings from the Indigenous Peoples of the land. Some of these concepts are identified along with terminology in both [Mi'kmaw](#) and [Wolastogey](#) languages which will be colour coded for identification. [Etuaptmumk](#) (eh-du-wup-du-monk) is a Mi'kmaw concept developed by Albert Marshall that infers the ability to understand the world through two perspectives, one Indigenous and one western influenced, or two-eyed seeing (Bartlett, Marshall & Marshall, 2012). Western knowledge and traditional knowledge offer two different perspectives but share characteristics for understanding how and why the world operates as it does. These activities will require students to use both world views to create understanding.

SUSTAINABILITY ACTION PROJECTS



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NOTE:



**WATCH FOR CLICKABLE
EXTERNAL WEBSITE AND
VIDEO LINKS**



CHAPTER 1: LEARN OUTDOORS



OVERVIEW

The learning activities presented in this chapter include key themes such as needs versus wants, personal hygiene, sustainability, and environmental awareness.

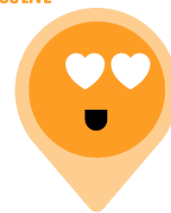
Students will be introduced to sustainable practices such as composting, reducing waste, observing water quality and taking age appropriate action to reduce the ecological footprint of schools.



Whenever possible, get your students outside to participate in these activities to encourage a human relationship to the land.

Allow students to become engaged, explore and attempt to explain their experiences using this adapted version of the 5E learning model.





PROJECT 1 :

COMPOST INVESTIGATION

GOAL :

Learn about decomposition and the benefits of composting organic matter while exploring what happens to materials that do not break down in nature.



A compost investigation led by grade 1 students at Salem Elementary School in Sackville, NB

MATERIALS :

- Shovel or digging spades
- Soil collected from a garden or nearby forest
- 6x glass jars
- Gloves
- Rabbit food
- Water



'BROWNS'

- Cardboard
- Dried leaves
- Straw
- Paper



'GREENS'


- Food scraps
- Fresh plants
- Grass clippings
- Manure



SPARK ACTIVITY

Read a story about worms, composting or decaying matter. There are a few stories to choose from in the literature catalog. Be sure to emphasize the process of decomposition and the word decay.

After the story, write down a recipe for compost. This includes greens, humus, soil and water.

 This learning activity offers the great opportunity to practice **Etuptmumk** (eh-du-wup-du-monk), two eyed seeing, through perspectives of western scientific investigations and the Mi'kmaw sustainability principle of **Netukulimk** (Na-du-ga-lumpk).

Explain that by using these valuable gifts from the Earth, we can create a nutrient rich soil to grow plants and vegetables. **Netukulimk** is a Mi'kmaw word used to describe the concept of using natural resources in a sustainable way.

By using the greens, humus and soil from the school yard, we are gifted a rich resource from the Earth to use responsibly in this investigation.



An example of a vermicompost bin full of worms hard at work.

The final ingredient for the compost recipe will include randomly selected items collected by students on the playground.

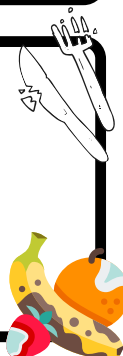
EXPLORE THE PLAYGROUND

STEP 1:

Head outside and divide students into groups to collect different ingredients for the experiment, allow for students to collect any items they think will decompose (including plastic, foil, etc).

STEP 2:

Return inside and lay out the random items collected to observe for the investigation. Encourage students to turn on their SUPER SENSES and make observations about the items using smell, touch and sight.



EXPLORE THROUGH INVESTIGATION

STEP 3:

Choose six of the random items to investigate and observe their ability to decay in compost. There are some key conditions that must remain the same for each jar, such as:

- How much soil goes in each jar
- The size of the jar
- Where the jar is placed during the investigation
- How much water the jar receives, etc



STEP 4:

Once students select the six items to investigate, place the items in separate jars and add the ingredients for composting (soil, greens, humus, rabbit food).

- Add a cup of water to each jar and you may even add worms (make sure each jar has the same amount/size of worms).
- Place lids on the jars. The lids must have small holes for air to get in and out.
- Allow students to draw or write some initial observations (use senses; smell, touch, sight).



- Students will record observations of the jars for 7 weeks.
- Add water to jars occasionally. Use a spray bottle to not soak the soil.
- After the 7 weeks, record your final observations and estimate if you believe the items are decaying and why.



**WAIT AND
OBSERVE FOR
7-WEEKS**

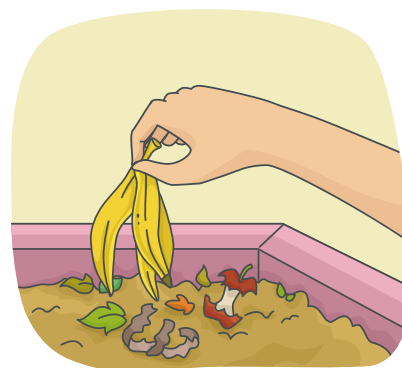
EXPLAIN WHAT HAPPENED

Explain the benefits of decaying matter for building healthy soil for plants and crops. Discuss the challenges of composting (smell, transporting soil, fruit flies, etc.)

Could a compost system work for your school?

EXTEND THE ACTION

Many schools around the province have student led composting initiatives to divert organic waste from landfills. These initiatives could lead to a school garden program for growing food and becoming a more sustainable school community.



Contact The Gaia Project for a current list of grants and resources.

contact@thegaiaproject.ca



PROJECT 2 :

ANIMAL NEEDS



GOAL:

Explore the human impacts on animals from climate change by pretending to be squirrels!

This experiential activity highlights the reliance wildlife have on their environment, changes in climate and the negative impacts of human activities.

MATERIALS:

- Chart Paper
- Blocks (red, green, yellow, blue)
- 20 Blankets/Towels
- Food Tokens



LOCAL CONNECTIONS

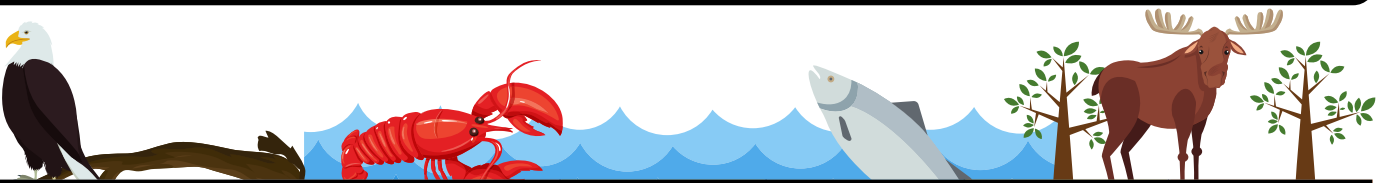
Seven-generation sustainability necessitates a sensitivity to the well-being of all living things seven generations forward and backward. Encouraging seven-generation sustainability can create empathy for species at risk. Atlantic Salmon require unpolluted cold streams and rivers for spawning. Dramatic changes in water levels because of alternating droughts and severe storms, plus overall temperature rise, serve to further endanger the salmon.

Learn more about species at risk in NB 

SPARK ACTIVITY

Gather blocks of four different colours for a scavenger hunt. Blue blocks represent water, green blocks represent food, yellow blocks represent shelter and red blocks represent air. Distribute a few blocks of each colour around the classroom.

1. Bring students to a seated area and write some the following native species of New Brunswick on the board. Use English, Mi'kmaw, and/or French terminology for the animals.



Living Thing			Food	Water	Shelter	Air
English	Mi'kmaw	French				
moose	Tia'm	orignal	leaves	stream	tree cover	breathing
salmon	Plamu	saumon	insects	lives in	sea	gills
eagle	Gitpu	aigle	fish	food intake	nest	breathing
lobster	Jagej	homard	fish	lives in	ocean bottom	gills

2. Next introduce the 4 basic needs of animals. Pick a few examples and have students describe the ways the local animals meet their basic needs.
3. Have students take turns searching the classroom while moving like an animal of their choosing until they find a block of each colour.

EXPLORE OUTDOORS

The best way to explore animal needs is to go where the animals live. Practice place-based learning and bring students to an outdoor area with space to move around. Where better to learn about animal habitats than in the space that animals meet their needs?

ANIMAL NEEDS ROLE-PLAY GAME:

STEP 1:

Students cover themselves in a blanket to simulate a warm den in the winter season.

On the facilitator's signal (audible or by gesture) "**Spring**", students collect as many food tokens as they can (food tokens are acorns, pinecones, etc.).

The term, "**Wotokoniye**" (woo-dg-nee-yeh) from the Wolastoqey language meaning the thawing of mother earth with warmer weather can be used as an audible signal.

STEP 2:



STEP 3:

After collection has occurred, signal "**Autumn**", or use the Wolastoqey term for the autumn season, "**Toqwa'q**" (dohk·waahk), indicating that students must find a new den (blanket) to take shelter for another cold season.

Stop the activity and explore how many food tokens each group of animals collected. Do your students understand that the success of the animal depends upon collecting food tokens for energy?

STEP 4:

STEP 5:

Recognize that animals will achieve better health by gathering more food tokens. Discuss the role of animals in the warm seasons to meet their needs and prepare for cold seasons. Compare this to how humans prepare for the winter season.



Reset the playing field by replacing the food tokens and have the students return to their winter shelters.

This time another group of students will be in a new role, Human builders. The builders will remove some of the food tokens in one area of the playing field making it harder for animals to meet their needs. Repeat the game with several scenarios in which the builders group interferes with the animal's tasks (i.e. remove tokens/shelters, etc.)

EXPLAIN THE CHALLENGE

Lead this discussion by revisiting the initial question, "What can we do to help animals meet their needs?" What human activities are restricting animals from meeting their basic needs?

How will extreme weather events impact local animals?

Have students share and record some ideas to preserve and enhance animals as they meet their food, shelter, water and air needs.

EXTEND THE ACTION

The next steps are up to your classroom. You can reach out for community support or apply for grants to implement an outdoor nature conservation corner. Suggest designating a "Wild Corner" of the playground that will remain a safe place for plants and animals to grow and flourish.

Contact The Gaia Project for a current list of grants and resources.

contact@thegaiaproject.ca



PROJECT 3 :

WATER KEEPERS



GOAL:

Learn about water conservation through observation of water and it's sources!

This experiment is designed to encourage students to ask questions about access to clean water and the impact pollution to water systems has on all living things.



Wolastoqiyik people standing along the edge of the water at French village, Kingsclear, celebrating Corpus Christi Day, ca 1887. Canoes, traditional dress, and a priest are in view. Photo credit: Provincial Archives of New Brunswick.

MATERIALS:

- 3 large water jugs
- Waste Items
- Water
- Journals



LOCAL CONNECTIONS

The Wolastoq River (Saint John River) formed the territory of the Wolastoqiyik and Passamaquoddy First Nations before the colonization of European settlers. The Wolastoq is the longest river in Eastern Canada and was one of the best transportation corridors for trade amongst Indigenous communities

Learn more about local watersheds in NB 

SPARK ACTIVITY

Take students outside to explain the activity to them, encourage them to think about the ways that they use water that they home and at school.

Option 1:

Students can bring this investigation by simply observing and playing with water. Find an area in the school playground to observe water. Where are the puddles? Where does water hold on the playground?

Challenge students to create dykes and dig channels and rainwater will travel through. This spark can be weather dependent by allow students to do the work in preparation for the next rainy day. Students will keep a close eye on their rain gardens and channels in the coming days as they anticipate the rain. Make sure they observe if the water looks clean and where they think the water is going to go next.



Option 2:

Follow a drop of water. This is a brainstorming and writing activity in which students will imagine the life of a drop of water. Where does it begin? What modes of travel will the droplet take? Think about the drains, taps, rivers, lakes, rain and snow transformations across their community. When is the water clean and safe to drink? When is the water not safe to drink?

EXPLORE THROUGH INVESTIGATION

Begin a 2-week investigation to observe the human impact of pollution on water sources.

STEP 1:

Add water (3/4 full) to 3 jugs and set in a safe area for daily observations.



Each day add a piece of organic waste to Jug A, a piece of inorganic waste to Jug B, and leave Jug C as a control.

STEP 2:

STEP 3:

Each day students will make observations on their water jugs. Students should use their eyes, their nose, and even their hands to describe the state of each jug. Do not recommend tasting the water.



Ask students; which jug would you want to drink? Which jug is a good home for fish? Which jug could you wash your hands in? How could we filter the water in this jug?

STEP 4:

STEP 5:

After 2 weeks take final observations and clean up the investigation.



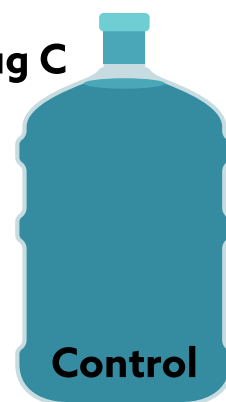
Jug A



Jug B



Jug C



EXPLAIN THE IMPACT

Students have collected data using their senses to build an understanding of the importance of water quality.

Collect observations from the student investigation and create a concept map for each jug on the board. Avoid subjective terms like gross, yucky or weird.

Examples:

Foggy Murky
Dirty **JUG A** Stinky
Brown Bubbles

Crowded
Dirty **JUG B** Foggy
No Smell

Clear
Clean **JUG C** No Smell
Colourless

Ask students a variety of questions about the jugs:

- Which would they use to water flowers?
- Which would they want fish to live in?
- Which would they want to drink from?
- What are the main differences between organic/inorganic waste?
- Which jug smells the worst? What might that bad smell suggest is going on with the water?
- Where does water go after leaving the drain at our school?
- How could polluted water affect the life of a marine creature?

Allow students to draw conclusions based on their findings but reassure them that communities work very hard to protect clean water, but we can all do our best to reduce pollution by not wasting water.

EXTEND THE ACTION

The next steps are up to your classroom. Students should consider ways they can reduce water waste. They may even create posters to promote saving water at the fountains and sinks around the school.

Learn more about the various NB Watershed Associations in your region and take this investigation into a higher level of action.



PROJECT 4 :

3 STAY WELL



BIKE WALK ROLL

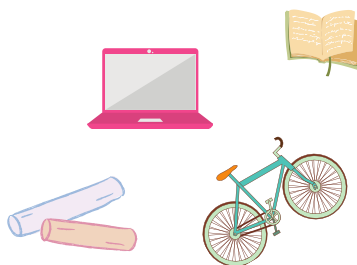
GOAL:

This project requires students to gather data as the students of your classroom or even the entire school community contributes to protect our shared Earth by reducing pollution. The data platform for this project exists online and can be linked to daily routines in the morning, recess, or lunch hour.



MATERIALS:

- Computer
- Journals
- Chalk
- Bikes



Students learning more about electrifying transportation with the Electrify Your Ride program at The Gaia Project.

LOCAL CONNECTIONS

Harsh winter conditions can make it difficult to travel to schools and work, and public transportation is not available in all regions of New Brunswick. Pollution can be reduced by biking, walking, carpooling or even investing in electric vehicles which can significantly reduce the collective pollution of transportation. Schools all around the province can learn more about electrifying transportation with The Gaia Project and the NB Lung Association.

Learn more about EV programs in New Brunswick:

<https://thegaiaproject.ca/en/programs/>

<https://nb.lung.ca/DriveElectricNB>

SPARK ACTIVITY

Get students thinking about the impact of transportation and air pollution with this activity.

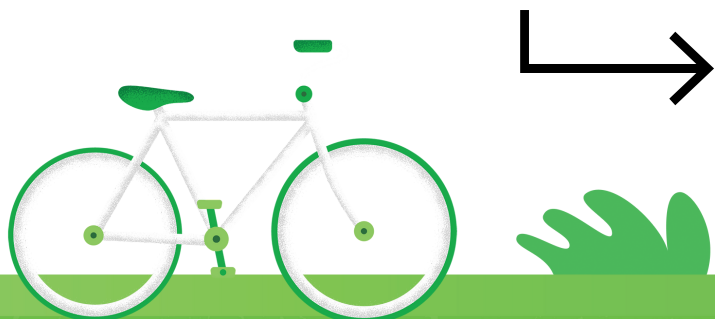
Ask your students to list all possible methods of transportation to school. List these options of transportation on the board. Next, ask students to brainstorm more creative ways to travel to school (i.e. air balloon, electric bus, stilts, etc.). Once a list is compiled ask the follow questions about each method of transportation.

1. What is the negative impact on the environment of this method of transportation?
2. Can you rank these methods of transportation based on positive impacts to human health?
3. What are the factors that influence their results?
(distance travelled to school, weather, season, traffic, pollution, etc.).

EXPLORE THROUGH DATA COLLECTION

Inform students that they will be collecting data to share with a Canada-wide project called Bike, Walk, Roll.

survey found @
<https://bikewalkroll.org/>



Do a quick hands up survey.

Ask students how they traveled **TO** school on:

Tuesday December 17, 2019

	Who biked to school today? All or most of the way.	4 Students
	Who walked to school today? All or most of the way.	5 Students
	Who rolled to school today? This includes skateboards, wheelchairs, scooters, etc.	1 Students
	Who rode a schoolbus to school today? This includes any shared vehicles for students only.	5 Students
	Who rode public transit to school today? All or most of the way. Includes trains, ferries, buses, etc.	0 Students
	Who rode in a car to school today? This includes taxis.	6 Students
	Number of students absent today.	2 Students

Next

Your class will sign up online and each day submit data on how many students in the class biked, walked and rolled to school. Do not allow for students to feel guilty about the pollution generated to travel to school as this is out of their immediate control. Remind students that the goal is to have a collective impact as an entire school community, students, staff and parents.



As students become more confident with this online tool, expand the project to gather school wide research. Surveys become more accurate and powerful with increased sample sizes. The more students surveyed, the more informative the results. Students may use class time to create chalk or paint prints from local neighbourhoods to the school yard. This will support a safe Bike, Walk, or Roll to the school in the mornings. Give each group different classes and grade levels to collect data from each day, or once a week. Be sure other teachers are on board by explaining the positive impact students are promoting.

EXPLAIN THE IMPACT

The website has some amazing tools to show students the impact they can have by encouraging their school to bike, walk or roll and reduce GHG emissions.

Present this powerful data to your school administration or district team to encourage other schools to be leaders in sustainability projects like Bike, Walk, Roll. Encourage students to walk or bike to school safely by drawing chalk footsteps on nearby sidewalks to the schoolyard.



EXTEND THE ACTION

The next steps are up to your classroom. Students can go further raising awareness about reducing transportation emissions in a safe manner. Some schools paint or draw fun footsteps leading from surrounding neighbourhoods to the school property for safe biking, walking and rolling to school.

Option 1:

How does reducing pollution make for a healthier environment for students? This initiative is extremely beneficial to the physical health of your students. Raise awareness with posters or have your students record a podcast about the benefits of the Bike Walk Roll program.



Is public transportation available in your region? If not, how come? What restrictions would your community have from riding the bus? Get creative about ways to reduce the transportation pollution in your region. Survey locals to get their opinion.

Option 3:

You can use the [ESRI Story Maps tool](#) to learn more about bicycle transportation in your region or explore what other Canadian cities have done to display their data.



PROJECT 5 :

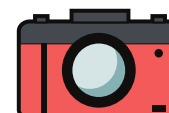
BUDDING BIOLOGISTS

**GOAL:**

Use the power of observation, and curiosity to explore and learn about the natural world. Take seasonal notes on plants and wildlife around the school grounds (and beyond) to generate a class discussion.

**MATERIALS:**

- ~20 leaves (in pairs)
- Weather-appropriate clothing
- Notebook
- Pencil crayons, crayons, pencil and/or markers
- Camera (optional)
- Reusealable plastic bag (optional)

**LOCAL CONNECTIONS**

There are many organizations in NB that work to conserve wildlife. Encourage students to look them up at home with their families to get a better understanding of the work that these organizations do:

- [Nashwaak Watershed Association](#)
- [Ducks Unlimited](#)
- [Nature NB](#)
- [ACAP](#)
- [Nature Trust NB](#)
- [Conservation Council NB](#)





SPARK ACTIVITY



Get students exploring leaf shapes while practicing their drawing skills



Before this activity:

Collect 10-12 pairs of leaves from your school yard or surrounding area OR use printable leaf cut outs from this [link](#).

1. Place the leaves into a hat or box for students to draw from.
2. Have students randomly select a leaf from the hat until each student has a leaf.
3. Inform students that they must find another student with the matching leaf shape.
4. Once students locate a partner they must then use their notebooks to draw the leaf to the best of their abilities.
5. If there is time left over have students swap leaves and draw a second shape.



EXPLORE YOUR SURROUNDINGS

Get Ready! Before heading outside, make sure you and your students are appropriately dressed for the weather.

Option: You can pack your field notebooks or leave them in the school to work on later.

Go Outside! Head towards an area that has become naturalized (perhaps there's a forest nearby). Nature is all around us, even in dense cities.

Observe nature with your students as you walk down a sidewalk, wander through an alley, visit a park, or even on the playground.

If you have access, explore a forest, a pond, a farm, the seaside, a lake, a community vegetable garden, a riverbank or a bog, then go for it!

RECORD YOUR OBSERVATIONS!

Remind students that they're going to be recording things that they can see in the area around them in their field notebooks.

• What Are Field Notes?

Field Notes include the date, location, drawings, and some basic observations about what you've found as you are in the place of observation.



Field Notebook Idea #1: Mindful Observation

Invite your students to look around and see what interesting things they can find.

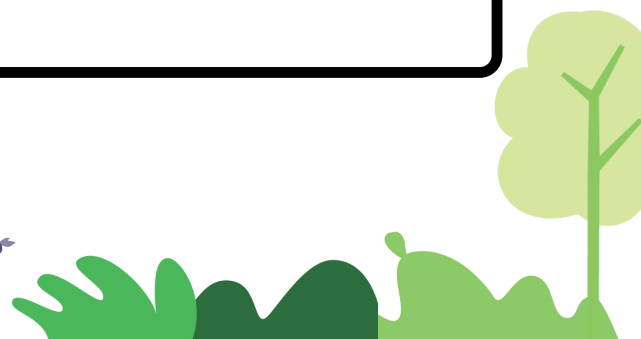
What senses are they using to observe? Some examples:

- LOOK at the different colours of flowers or leaves
- SMELL the different types of plants
- LISTEN for any nearby creatures
- Do you recognize any plants or animals? Write down their names.
- LOOK for different types of seeds, what animals eat them?
- LOOK for big objects and small objects, soft objects and rough objects!

Field Notebook Idea #2: Seasonal Changes

Have your students pick their own 'special tree' to observe throughout the school year. Encourage them to research the tree species (Plant ID app), and some interesting facts about it.

Each month, have your students visit their tree and write down field notes or make a drawing about changes that they observe through the seasons.



Make some observations with your students about their tree:
 Is this a coniferous tree or deciduous tree? Hardwood or softwood?
 Does this tree produce nuts? pinecones? fruits? flowers?
 What do the leaves look like? feel like? smell like?
 Describe the colour and texture of the bark.
 Do you notice any roots coming out of the ground?
 Do you notice any signs of other critters living in or near your tree?
 Each time you visit the tree, notice what has changed since your last visit and record these observations in your field notebook.

REFLECT ON NATURE

Once you're back in class, take out your findings and lay them out on a table or present around the room on the walls. Encourage your students to study the textures, colours, smells, and patterns of each object.

You and your students have just spent a great deal of time absorbing nature's beauty. How did it make your students feel? What kind of emotions do they experience when they observe nature?
 Consider the principles of the Honorable Harvest, an Indigenous world view or 'rule of thumb' before taking anything to inspect further in class.

EXTEND THE ACTION

Plant some edible trees and shrubs at school for some exciting harvests with your students. Some local varieties include:

Haskap berries (June) - Strawberries (June)

Apples and Pears (September/October)

Grapes and Blackberries (September)

Remember to plant in an area that receives full sun and is protected from harsh winter winds. Make sure to fertilize and minimize air pockets when placing in hole and give it a good soak! In the first few summers it may require some water during dry spells.

CHAPTER 2: LEARN INDOORS



OVERVIEW

The learning activities presented in this chapter are linked to key themes including provincial identity, sustainability, leadership and environmental disposition.

Students will be introduced to sustainable practices such as eating local foods, environmental awareness, reducing waste, investigating resource extraction, and taking age appropriate action to reduce the ecological footprint of the school.



There may still be opportunities to get your students outside to participate in extension activities, or to make connections to the outdoor learning investigations. Allow students to become engaged, explore and attempt to explain their experiences using this adapted version of the 5E learning model.



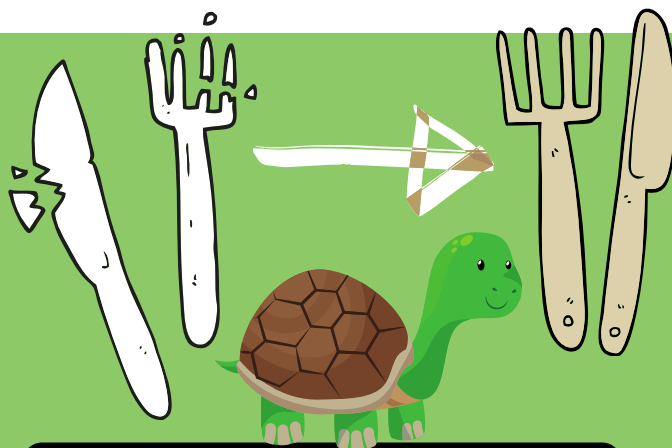
PROJECT 6

PLASTIC AWARENESS

12 LIVE BETTER

**GOAL:**

Learn about plastic and how most of it ends up in the landfills, our oceans and waterways, and the environment. Tackle the challenges of single-use plastics with your students and investigate the types that they may encounter both at home and in school.

**MATERIALS:**

- Poster Board
- Plastic Waste
- Art Materials



Globally, researchers estimate that the production and incineration of plastic will pump more than 850 million tonnes of greenhouse gases into the atmosphere annually.

LOCAL CONNECTIONS

New Brunswick's Regional Solid Waste Commissions have realized that the key to finding a market for our recyclables is to provide a steady supply of clean, sorted product. Different plastics have different properties, so even a small amount of the wrong type can ruin a 'melt' of recycled plastic.

Learn more about plastic recycling in NB 

SPARK ACTIVITY

Watch these videos and start a discussion with your students about how waste has impacted their lives or the lives of someone they know.

Here are two videos that explore how plastic waste impacts habitats:

1) Youtube Search: All the Way to the Ocean

This 15-minute video follows two friends as they discover the relationship between plastic pollution and the health of rivers, oceans and marine life.



2) Youtube Search: A Whale's Tale CBC Kids

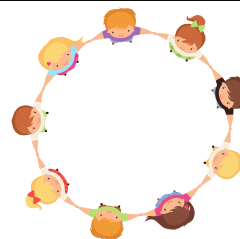
This 3-minute video follows a Whale and other marine animals impacted by human pollution.



EXPLORE THROUGH MOVEMENT

STEP 1:

Students form a large circle, seated and hold hands. The interior of the circle represents the ocean.



Select 4 students to move around the ocean as marine animals. They can move anywhere in the circle, but they may not touch any piece of plastic or they are out of the circle.

STEP 2:

STEP 3:

Place plastic bottles and bags the ocean, making it more difficult for the marine organisms to move throughout the circle.

Continue to add plastic in intervals until the students, find it difficult to move freely.

**STEP 4:**

EXPLAIN PLASTIC

Students observe that plastic waste impacts the habitats of many animals. When plastics break down, they don't biodegrade; rather, they break into smaller pieces, many of which end up in the oceans as microplastics that harm aquatic life and birds.

Discuss how plastic is manufactured in a factory and used to package many of the products we use daily. Ask students to identify products they use daily that use plastic. There are symbols and numbers on most plastic products to signify their chemical make-up. Have students investigate the plastics from the first activity to find these symbols and numbers.

Recycling agencies use these numbers to determine which plastics can be recycled and repurposed. Some of these plastic products are unsafe to reuse for eating or drinking, including common #1 water bottles.



EXPLAIN PLASTIC

Plastic can and has been made from other sources, including plant-based materials such as fibres and starches, but fossil fuels are still relatively plentiful and inexpensive, and plant-based products also present environmental challenges (see Appendix II to find the recycling and waste commissions in your region).

NUMBERS ON PLASTIC MATERIAL



PETE

- Soft drink bottles
- Water and juice containers
- Cooking oils



HDPE

- Milk jugs
- Cleaning agents
- Laundry detergents
- Shampoo & soap bottles



V

- Trays for sweets
- Food foils
- Plastic bubble foils
- PVC pipe



LDPE

- Crushed bottles
- Shopping bags
- Most wraps



PP

- Furniture
- Luggage
- Toys
- Car plastic



PS

- Toys
- Hard packaging
- Cosmetic bags
- Jewelry
- CD cases



OTHER

- Acrylic
- Nylon
- Fiberglass

EXTEND THE ACTION

The next steps are up to you! Reach out for community support or apply for grants to implement plastic diversion programs.

Project Grants

- **Place Aux Compétences**
- **Rising Youth Canada**
- **Pitch-in Canada**
- **Environmental Trust Fund**
- **Canada Post Community Foundation**



Contact The Gaia Project for a current list of grants and resources.

contact@thegaiaproject.ca

PROJECT 7

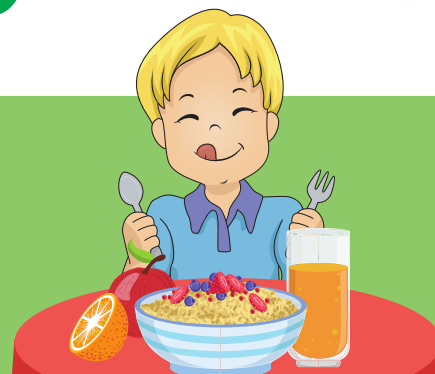
TRAVELLING FOOD

2 EAT
BETTER

GOAL:

Explore the food items we consume daily and how buying local is better for the environment and the economy.

Encourage students to bring in food packaging from home to identify which region or country the item came from for this project.



MATERIALS:

- Food containers
- Meter stick
- Maps
- Computers
- Journals



Students hold up their homemade reusable snack bags after working with The Gaia Project.

LOCAL CONNECTIONS

New Brunswick has a variety of natural resources that people have accessed for thousands of years. Two local food resources include fiddleheads and maple syrup. Fiddleheads are picked in the spring near rivers and streambeds while maple syrup is made from the sap of the sugar maple tree. Indigenous Peoples of New Brunswick have been accessing these foods for thousands of years and **Mahqankahtimok** (mah-gwan-gaht-dee-mog) is the Wolastoqey term for the gift of maple sugaring time.

Learn more about local products of NB 



SPARK ACTIVITY



Introduce the Esri Story Maps tool with your classroom. Find the location of a local farm, market, or food production factory and create a simple story map to demonstrate the transportation required for these food products to get to your community. How far did these products have to travel?

To learn more about Story Maps click here.



EXPLORE THROUGH INVESTIGATION

Students are encouraged to collect food packaging from home that would normally be thrown out. Request that students rinse out cans, cartons, cardboard boxes, and/or plastic containers.

Use these packages to investigate the country of origin of these products. To help locate this information you may use the Canadian Food Inspection Agency CFIA label guide.

Record the locations where these products are produced and have students research the distance these foods travelled to get to your community using Google Maps. The process of food manufactory can be complex, so for the purposes of this activity just ask students to work with the location marked on the food packaging. Sometimes an estimation will be the best measure.



Nutrition Facts Valeur nutritive

Per 1 cup (250 mL)
pour 1 tasse (250 mL)

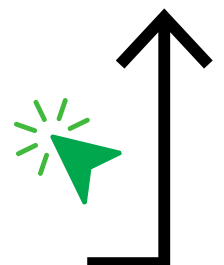
Calories 110	% Daily Value*
	% valeur quotidienne*
Fat / Lipides 0 g	0 %
Saturated / saturés 0 g	0 %
+ Trans / trans 0 g	
Carbohydrate / Glucides 26 g	
Fibre / Fibres 0 g	0 %
Sugars / Sucres 22 g	22 %
Protein / Protéines 2 g	
Cholesterol / Cholestérol 0 mg	
Sodium 0 mg	0 %
Potassium 450 mg	10 %
Calcium 30 mg	2 %
Iron / Fer 0 mg	0 %

*5% or less is a little, 15% or more is a lot

*5% ou moins c'est peu, 15% ou plus c'est beaucoup



**Click to read
more on food
labelling format**



EXPLAIN FOOD MILES

Display the data collected by students in kilometres on the board.

Create a visual scale for students to observe this data.

You can trace a meter stick on the board which will represent 10,000 KM or a value of distance that students in your classroom will comprehend.

Demonstrate the process of charting your data with an item you've brought from home. For example, if the item is a pack of hot dogs from Manitoba, use a computer to find the distance these hot dogs have travelled and draw a line to represent the distance in relation to your scale (10,000 KM or other).



Students can now observe which products traveled the longest to reach their local community. How did the food travel (boat, plane, truck)?

How much gasoline or jet fuel might have been burned into greenhouse gases (GHG) to deliver these products to New Brunswick? How do we avoid contributing these emissions?

Can we find products like these at the local markets?

Continue to add to the chart for a few weeks and observe if the lines become shorter over time.

EXTEND THE ACTION

The next steps are up to your classroom. Students can consider ways they can reduce their ecological footprint by learning about and buying local foods. Visit the local markets of your community and find out what food products are grown in New Brunswick.

Option 1:

Learn more about our relationship to ugly fruits and vegetables. What form do these foods naturally take on? Do they taste any different?

Where to learn: [Article of Ugly Fruits](#)

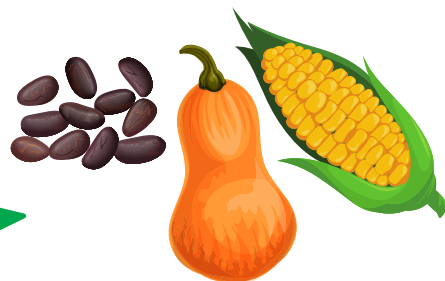
Where to engage: [Activities for Students](#)



Option 2:

Mawihpuwok is a term used in the Wolastoqey language meaning 'they eat together'.

Research the traditional foods of local Indigenous communities in the province. Check out the [Wabanaki collection](#) for more great resources.



Recipe



Option 3:

Have your class design a recipe book with a delicious menu provided by your own community. Reduce food miles and celebrate your provincial identity with Acadian, Wabanaki and other traditional dishes.



PROJECT 8

MINE YOUR BUSINESS

GOAL:

This lesson will allow students to investigate the impacts of mining natural resources required for energy production and the development of industry. Students will consider protecting the natural habitats of living things, the economic influences of different nations, and explore alternative approaches to promote sustainability.

MATERIALS:

- Play-Doh
- Toothpicks
- Forks
- Other tools
- Music
- Various types of beads



New Brunswick's Picadilly Potash mine started production in 2014.

LOCAL CONNECTIONS

New Brunswick's complex geological past has given rise to a diversity of metallic mineral resources and has shaped our landscapes, communities and economy. The province as we know it was formed over the last billion years forged by moving continents, changing climates and complex geologic processes. Metallic mineral deposits may contain metals such as copper, lead, zinc, and iron; precious metals such as gold and silver. Industrial rocks and minerals are plentiful in New Brunswick, including gravel, gypsum and lime.

Learn more about [mining in NB](#) and [Earth Science Literacy](#) 

SPARK ACTIVITY

Dance Game:

Ask four students to come to the front of the class!



- **Student 1 will be attracted to wooden objects**
- **Student 2 will be attracted to metal objects**
- **Student 3 will be attracted to plastic objects**
- **Student 4 will be attracted to glass objects**



This game is like musical chairs. Use your computer or cellphone to play a song and have the four participating students dance and move around the room freely, but when the song stops the students must quickly find the nearest material they are attracted to and touch it. The last student to do so can return to their seat and be replaced by another.

Continue this activity a few rounds and make observations which materials are easiest to locate around the classroom.

- Where did these materials come from?
- Are they man made or natural resources? If so, where did they come from?

Find out what students know about materials that are mined from underground.

EXPLORE HANDS-ON

Before the activity randomly mix various shapes and sizes of beads into containers of Play-Doh. Students will be working with a large slab of Play-Doh, trying to extract these beads with tools. Time to introduce the students to Play-Doh. Be sure to enforce that the Play-Doh is not to be played with, but instead treated as a scientific tool.

1) Break students into groups of 4 or 5 and move each group to a different region of the classroom. Have each group pick a name of their mining company and write it on the board.

2) Give the same 'mining tools' to each group. Start with a few toothpicks.



3) At the right price, students can upgrade to use forks, tongs, paperclips, pencils, or whatever you choose from around the classroom. Just be sure to have a variety of items for mining.

4) Give each group an equal chunk of Play-Doh and provide the rules:

- You may not touch the Play-Doh with anything except the mining tools.
- Beads must be extracted from the Play-Doh.
- No Play-Doh residue should be left on the beads.
- Work as a team or beads will be taken from your company.

EXPLORE MINING OPERATIONS

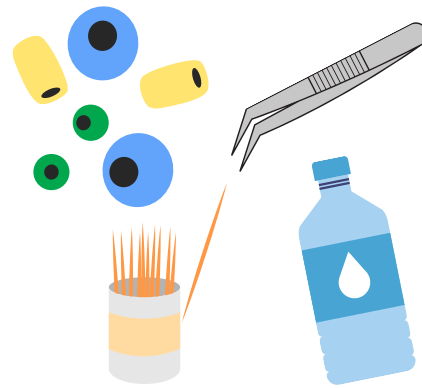
Allow students to work through the first load of Play-Doh. While students are busy prepare the following:

- Introduce a value per bead chart. See different example charts below. The beads may have more value based on size, shape or colour. Inform students that they can now trade clean beads for company value. Prepare a tally on the board to display each companies earnings at the end of the activity.
- Display an equipment upgrade chart for students to access throughout the activity. Student groups can invest their bead earnings to buy new equipment. Here are some ideas how to display these items.

VALUE PER BEAD AND EQUIPMENT UPGRADE CHARTS

Bead Type	Bead Value	Bead Type	Bead Value
Small	\$1	Blue	\$1
Medium	\$2	Yellow	\$2
Large	\$5	Green	\$5

Equipment Upgrade	Cost per Item
• Toothpick	\$1 worth of beads
• Fork	\$5 worth of beads
• Tweezers	\$10 worth of beads
• Cup of Water	\$10 worth of beads



EXPLAIN THE CHALLENGES

End the hands-on activity and examine how each company did with bead extraction. Students must do some math to determine their company's total earnings. Write each company total on the board.

Now it is time to clean up.

Land Reclamation: Mining is a particularly important industry in many communities across Canada. Members of our society rely on many mining projects to build our cities and use everyday household items that are taken for granted. However, a balance must be agreed upon as the environmental impact can be devastating.

Students must now begin to clean up their mess and put the Play-Doh back in the state that they received it. Give each group a few minutes to for Play-Doh reclamation. The group with the messiest station could be issued a fine for environmental damages. This fine will be reduced from their company profits.

EXPLANATION CONT...



Did this fine have a major impact on company earnings? Was it worth cleaning up the mess to avoid the fine? Does this happen in real life?

Discuss the mining of fossil fuels, uranium, metals and other resources. These resources, like the beads, are not renewable and once used up take very long time to reform in the Earth. Mining is an important industry in many communities across Canada. We rely on many mining projects to build our cities and use everyday household items that are taken for granted. However, a balance must be agreed upon as the environmental impact can be devastating.

Explore the mining waste hierarchy table and reflect on the bead extraction activity. How could students have reduced, reused or recycled the Play-Doh waste?

EXTEND THE ACTION

The next steps are up to your classroom. Consider contacting local outreach groups for a classroom visit or additional educational

NB Virtual Museum Rocks Exhibit
Quartermain Earth Science Centre
Stonehammer UNESCO Geopark



Keep with the current developments around SDG #9!



PROJECT 9

WASTE-FREE LUNCH

**GOAL:**

Encourage students to start practicing a reduce-first method of waste diversion by bringing reusable containers for lunches and snacks. The goal of this activity is to reduce waste as a class and potentially as a school community and explore alternative packaging for food.

**MATERIALS:**

- Reusable Containers
- Letters to parents
- Balance scales
- Beeswax
- Cotton Sheets
- Wax Wrap Recipes



Bringing in reusable snack bags and straws can help cut down on a lot of plastic waste in schools and you can even make your own bags with students or at home!

LOCAL CONNECTIONS

Reducing waste at the school can have significant direct and indirect impacts. If schools can lead the way with a waste reduction mentality, houses and businesses in the community are likely to follow. Students can share these ideas and practices with parents and vote with their dollars to eliminate the need for single-use wrappers and bags used to package food and other items.

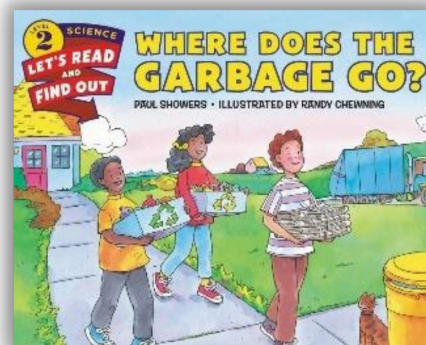
Learn more about waste free lunches in NB schools 

SPARK ACTIVITY

Once a day for a week, your class will need to use a scale and weigh the classroom trash bags. Write down the total weight of trash during the week of normal snack and lunches. Display this data on the board for students to observe.

Read the book, "Where does our garbage go?". Ask students where the garbage from the school goes. Does it all get recycled like in the book? Can we do better to sort or reduce or garbage?

Challenge students to reduce the garbage generated in the classroom by targeting recess and lunch time garbage.



EXPLORE WASTE REDUCTION

Students can work with you to draft a letter for parents and guardians that describes an initiative to reduce waste at snack and lunch time.

An information sheet on what food items to avoid might help.

It is important to note that there could be socio-economic issues to this initiative if families can't afford reusable containers for their children. Food can be a topic that causes discomfort and highlights inequities amongst students, but this can be explored through the activity. Discuss challenges some families have with keeping the refrigerator full of healthy food. How can we help each other eat well and reduce waste as a team of learners?

Raise awareness around the school about this initiative and seek out reusable containers from teachers, community partners, and other parents at the school. Use this collection of reusables for all students in your classroom to reuse each day through the week.

Begin the action project and be sure to discuss the importance of reducing and reusing each day.

EXPLAIN ECOLOGICAL FOOTPRINT REDUCTION

Weigh the trash bags at the end of each day for a total of 5 days of waste free lunches.

Compare these weight values with those collected before the waste free lunch project.

How much waste reduction was generated by students?

What would happen if the whole school completed a Waste-Free Lunch project?

Waste reduction can reduce the ecological footprint of our schools. We will require less garbage bags and less garbage transported in trucks around our community. Less trucks on the road means lowering emissions sent to the atmosphere.



EXTEND THE ACTION

The next steps are up to your classroom.

Reusable Beeswax Wrap:

You may choose to create reusable food packaging products such as beeswax wrap. This activity does require heat and may not be safe with young students, but you can share the recipe with parents.

Sorting Waste:

Students can consider ways they can reduce and reuse school waste. Contact your local waste commission about school waste diversion upgrades and improved infrastructure.

Contact your local Waste Commission to talk about waste in your area and for more potential programs (see appendix)!

PROJECT 10

TRASH TRACKER

12 LIVE BETTER



GOAL:

Students will take meaningful action to recycle, reduce or reuse waste items from their school, by developing a basic understanding of sorting waste items.

The Trash Tracker activity requires students to develop accountability for their own contribution to the human impact on the environment by creating waste.



MATERIALS:

- Trash
- 6 Buckets or Bags
- Tarps
- Sorting Bins
- Gloves
- Scale



Students performing a waste audit to find out how much waste could be diverted from the landfill.

LOCAL CONNECTIONS

The Gaia Project works with schools, local waste commissions and the government to educate students about sorting waste and improving the sorting process at the school level. The Trash Tracker program is engaging, educational and safe to conduct with the right materials.

Learn more about [NB Waste management](#)



SPARK ACTIVITY

Bring students outdoors to the playground or a similar community area to locate trash. Using gloves students can collect trash items but be sure to keep a tally of any plastic, paper or compostable items to examine back at the classroom.

Return to the class with at least 20 items and examine with the group. Look for different types of materials (plastic, paper, food waste, etc). Challenge students to imagine where these items could have ended up if they were not thrown on the ground.

EXPLORE BY SORTING

The Trash Tracker project requires collection of garbage bags at the school for 2-3 days. Work together with your custodial staff to prep trash for the activity. Do not save trash any longer than 3 days health and sanitation protocols.

STEP 1:

Set up a tarp in the middle of the classroom and place a sorting bin on the tarp.

Brainstorm with students up to 6 sorting categories for trash. Categories can include types of plastic, metal, electronic, refundable, paper, Styrofoam, compost, etc. Allow creativity but try and synchronize categories to the local sorting requirements of your region.

STEP 2:



STEP 3:

Divide students into groups based on the categories they have determined. Each group will be responsible to sort a single category.

Weigh the trash bags collected after 2 days and record the weight on the board. This weight will be significant in explaining the impact of reducing waste and recycling.

STEP 4:

STEP 5:

Pour some trash into the sorting bin, ask students to put on gloves and then one at a time ask groups to come up and sort out their materials.

After each group sorts out the recyclable materials, the remaining trash should be put into a separate trash bin. Dump more trash into the sorting bin and repeat the process.

STEP 6:

EXPLORE BY SORTING

Once the sorting is completed each group must weigh their bucket of materials. Write down each value on the board and have students determine what percentage of trash they may have saved from the landfill.

Introduce the Esri Story Maps tool with your classroom. Find the location of the local landfill. Create a simple story map to demonstrate the travel of garbage trucks to transport this school waste to your community landfill. How far would these products have to travel?

Share your story with the Story Maps tool!

EXPLAIN THE IMPACT

By reducing the amount of waste sent to the landfill, your school has reduced the level of greenhouse gases emitted by garbage trucks travelling to the landfill. Hopefully, your students feel positive that they have reduced their waste at the school, but now it is time to ask some hard questions.

Where does the sorted material go next?

- Plastic and paper must be separated properly, and often single-use paper products are created with plastic coatings. These materials cannot typically be recycled. Paper waste must be clean to be recycled. Contamination from water, food or other substances can ruin an entire batch of recycled paper.
- Electronic waste must be taken to a designated area. Most schools do not have curbside pick-up as it can be expensive. This makes recycling programs difficult to achieve.

Think about reducing, reusing and refusing certain waste items before having to recycle.

EXTEND THE ACTION

The next steps are up to your classroom. Students can improve the waste sorting process at their school. Are the recycling containers marked and presented in a logical way?

Students may be more interested in higher level systems of waste diversion. What are the regional and provincial policies to sort and recycle, reduce or reuse waste items?

How do we make the producers of plastic packaging accountable for all the single-use waste items in our classroom?

Write a letter to your regional waste commission to learn more about these issues. Explore critical justice citizenship and learn about what our provincial leaders can do better to reduce waste in your community.

Learn more about Recycle NB Regional Commission Programs



EXTEND YOUR ACTION

The next steps are up to your classroom. You can reach out for community support or apply for grants to implement plastic diversion programs.

Project Grants

- Place Aux Compétences
- Rising Youth Canada
- Environmental Trust Fund
- Canada Post - Community Foundation



Contact The Gaia Project for a current list of grants and resources.
contact@thegaiaproject.ca

Students should consider ways they can contribute by:

1. Helping clean the school yard or other nearby community areas.
2. Creating posters to spread awareness about the dangers of single-use plastics.
3. Improving school plastic sorting practices.
4. Creating a collaborative art project with plastic waste materials in the school.
5. Crafting reusable grocery bags from old, donated clothing.
6. Completing Project #9 Waste Free Lunches.



APPENDIX ITEMS



- **WORD WALL**
- **COMMUNITY PARTNERS &
SCHOOL GRANTS**



WORD WALL

COMPOST INVESTIGATION

**COMPOST – DECAY – DECOMPOSE – SOIL – FUNGUS – INSECTS – HUMUS –
RECYCLE – REDUCE – ETUAPTMUMK – NETUKULIMK – NIPI – OQOQIAQ – WETI**

Compost (noun) - a mixture largely of decayed matter of once living things (as grass) or their products (as coffee grinds) and used for fertilizing and conditioning land.

Etuaptmumk (eh-du-wup-du-monk), two eyed seeing, through perspectives of western scientific investigations and the Mi'kmaw sustainability principle of Netukulimk (Na-du-ga-lumpk).

Humus (noun) - a brown or black product of partial decay of plant or animal matter that forms the organic portion of soil

Netukulimk (Na-du-ga-lumpk) is a Mi'kmaw word used to describe the concept of using natural resources in a sustainable way.

Nipi (noun) – Mi'kmaw term for a leaf (of tree).

Oqoqiaq (noun) - Mi'kmaw term for fungal growth on damp or decaying matter.

Weti (noun) – Mi'kmaw term for a worm.

ANIMAL NEEDS

**ANIMALS – AUTUMN – FOOD – HABITAT – HUMAN – NEEDS – PLANTS SEASON –
SEVEN GENERATION – SPRING – SHELTER – TIA'M – TOQWA'Q – WOTOKONIYE**

Habitat (noun) – the type of environment in which a group of organisms normally lives in.

Seven-Generation Principle (noun) - based on an ancient Iroquois philosophy that the decisions we make today should result in a sustainable world seven generations into the future.

Tia'm (noun) – Mi'kmaw term for moose.

Toqwa'q (dohk-waahk) - a Wolastoqey term transliterated as 'It is Autumn'. Term gifted by Elder Imelda Perley.

Wotokoniye (woo-dg-nee-yeh) - from the Wolastoqey language meaning the thawing of mother earth with warmer weather

WORD WALL

WATER POLLUTION

CLEAN – CLEAR – DRAIN – DRINK – FILTER – MURKY
OCEAN – RIVER – SMELL – SAMQWAN – SIPU – WOLASTOQ

Passamaquoddy (noun) - an American Indian/First Nations people who live in northeastern North America, primarily in Maine, United States, and New Brunswick, Canada.

Samqwan (sam·hkwan) – Mi'kmaw term for water.

Sipu (noun) – Mi'kmaw term for river.

Wolastoq (wool-luss-took) (noun, adjective) - beautiful and bountiful river renamed St. John. Wolastoqey adjective for things i.e. food etc.

BIKE WALK ROLL

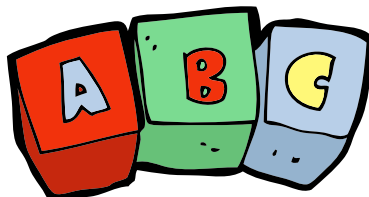
AIR QUALITY – DISTANCE – EMISSIONS – GWITN – HYBRID –
IDLE – POLLUTION – SURVEY – TRANSPORTATION

Emissions (noun) – something that has been released or emitted into the world. Car exhausts or radio transmissions are examples of emissions.

Gwitn (noun) - Mi'kmaw term for canoe.

Hybrid (adjective) – a thing made by combining two different elements; a mixture.

Survey (verb) – to ask (many people) a question or a series of questions in order to gather information.



WORD WALL

BUDDING BIOLOGIST

**BIOLOGIST – CONSERVATION – FIELD NOTES – NATURE – OBSERVATIONS –
OPOS – PUNASQAHTOQ – SPECIES**

Field Notes (noun) - notes recorded by scientists or researchers in the course of field research, during or after their observation of a specific organism or phenomenon they are studying.

Opos (uh-pus) is the Wolastoqey term for tree.

Punasqahtoq (pu-na-squat-took) is the Wolastoqey term for leaf bud.

Species (noun) In biology, a species is the basic unit of classification and a taxonomic rank of an organism.

PLASTIC AWARENESS

**CONTAMINATE – LANDFILL – MARINE – MICROPLASTICS – OCEAN –
RECYCLE – REDUCE – REUSE – SUKAYEWOTIKON**

Contaminate (verb) - to make impure or unfit for use by adding something harmful or unpleasant.

Landfill (noun) - the site used for such waste disposal or the waste disposed of.

Microplastics (noun) - extremely small pieces of plastic debris in the environment resulting from the disposal and breakdown of consumer products and industrial waste.

Sukayewotikon (sook-ay-yay-wo-tay-kun) is the Wolastoqey term for 'anything thrown away' i.e. trash, garbage; slop, toilet contents, sewage.

WORD WALL

TRAVELLING FOOD

EMISSIONS – LOCAL – FIDDLEHEADS – INGREDIENTS – MAWIHPUWOK – MARKET – PACKAGING – PRODUCTION – TRANSPORT – APATOQ – MIJIPJEWEL – MAHQANKAHTIMOK

Apatoq (a·ba·dohk) – Mik'maw term to set aside a portion of food.

Fiddleheads (noun) a wild edible plant that is harvested along riverbanks in the springtime

Mawihpuwok (Mah-wee-pu-wuk) is the Wolastoqey term for 'They eat together'

Mahqankahtimok (mah-gwan-gaht-dee-mog) - is the Wolastoqey term for the gift of maple sugaring time. Term gifted by Elder Imelda Perley.

Mijipjewel (noun) – Mi'kmaw term for food.

MINE YOUR BUSINESS

EXTRACT – FOSSIL FUEL – MINERAL – MINING – RECLAMATION – RESOURCE – REGULATION – RESIDUE – SUSTAINABILITY

Extract (verb) - to choose and take out for separate use.

Fossil fuel (noun) - a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms..

Reclamation (verb) - Returning disturbed land to a usable state.

Residue (noun) - a substance or quantity that remains after a part has been removed or after a process has been completed.

WORD WALL

WASTE-FREE LUNCH

**COMPOST – CONTAINER – MULTI-USE – PORTION – REDUCE – REUSE
SINGLE-USE – WASTE*FREE – NOSSUWEHLAL – TPAPEKHIKON**

Reduce (verb) Finding ways to reduce the amount of waste that is generated is the first and most important step of the 5 R's

Nossuwehlal (neh-seh-wah-wal) - is the Wolastoqey term for waste (ie the child wasted the milk by pouring it out).

Tpapekhiikon (to-pop-back-he-kon) - is the Wolastoqey term for a balancing scale.

TRASH TRACKER

**ACCOUNTABLE – COMPOST – CONTAMINATE – GRAMS – JUSTICE – RECYCLE –
REDUCE – REUSE – SORT – WASTE – GELEIWATL – NETUKULIMK**

Accountable (adjective) being responsible for something or someone.

Contaminate (verb) - to make impure or unfit for use by adding something harmful or unpleasant.

Justice (noun) – a concept on ethics and law that means that people behave in a way that is fair, equal and balanced for everyone.

Geleiwatl (ge·ley·wa·dêl) – Mi'kmaw verb to protect or keep safe.

Netukulimk (Na-du-ga-lumpk) is a Mi'kmaw word used to describe the concept of using natural resources in a sustainable way.

COMMUNITY PARTNERS



Click for Local Connections

Professional Learning

Energy

[EOS Eco-Energy](#)

Climate

[Learning for a Sustainable Future](#)

School Gardens

[The Ville Cooperative](#)

[Community Garden Best Practices Toolkit](#)

Outdoor Learning

[Great Minds Think Outside](#)

[Brilliant Labs Outdoor Makerspace](#)

Instructional materials

Climate

[R4R - Learning for a Sustainable Future](#)

[Bike Walk Roll](#)

Energy & Transportation

[The Gaia Project](#)

[EOS Eco-Energy](#)

[NB Power](#)

[ESRI Storymaps](#)

[NB Virtual Museum Rocks Exhibit](#)

Traditional Knowledge

[Two-eyed Seeing](#)

School Gardens

[Whole Kids Foundation](#)

[Scotts Canada's Gro For Good program](#)

Biodiversity

[Nature NB](#)

[Birds Studies Canada](#)

[Homarus Eco-centre](#)

[Ducks Unlimited](#)

[Falls Brook Centre](#)

[Nature Trust NB](#)



Project Grants



[Place Aux Compétences](#)

[Rising Youth Canada](#)

[Environmental Trust Fund](#)

[Canada Post - Community Foundation](#)

[OurCanadaProject](#)

[Community Food Action Grant](#)

Local Outreach Programs

- [NBEN Earth Education](#)
- [NB Museum](#)
- [NB Conservation Council](#)
- [Quartermain Earth Science Centre](#)
- [Stonehammer UNESCO Geopark](#)
- [Daly Point Nature Reserve](#)
- [Petitcodiac Riverkeeper](#)
- [Meduxnekeag River Association](#)
- [Mi'kmaq-Wolastoqey Centre](#)
- [Maliseet Nation Conservation Council](#)
- [Fort Folly Habitat Recovery](#)
- [Various NB Watershed Associations](#)
- [Recycle NB Regional Commission Programs](#)

