

Kindergarten

Title: "Egg Carton Caterpillars"	Subject/Course: Art	Time: 40 minutes (activity broken into sections)
Strand: Visual Arts	Grades: Kindergarten	
Lesson Description		
Students will create a caterpillar out of recycled egg cartons. They will use paint and various decorations to decorate the caterpillar. Finally, students will cut out a leaf for their caterpillar to rest on.		
Stage 1: Desired Results		
Fundamental Concepts/Skills		
Students will create their caterpillars with elements of design: color and texture		
Big Ideas/Essential Question		
Young children have an innate openness to artistic activities		
Ontario Curricular Overall Expectation		
V2: demonstrate basic knowledge and skills gained through exposure to visual arts and activities in visual arts		
Ontario Curricular Specific Expectation		
V2.1 explore a variety of tools, materials, and processes of their own choice to create visual art forms in familiar and new ways (e.g., use natural and recycled materials at a learning centre)		
V2.2 explore different elements of design (e.g., color, line, shape, texture, form) in visual arts		
Lesson Goals		
<ul style="list-style-type: none"> • Students will practice their fine motor skills in order to complete this activity • Students will experiment with the use of colour and texture 		
Key concepts and/or skills to be learned/applied:		Background Knowledge:
<ul style="list-style-type: none"> • Artistic expression • Artistic appreciation 		<ul style="list-style-type: none"> • Students will use previous knowledge of their fine motor skills for painting, decorating and using scissors
Stage 2: Planning learning experience and instruction		
Student Groupings		Instructional Strategies
<ul style="list-style-type: none"> • Students will work in groups at the learning centre, to create their own caterpillar 		<ul style="list-style-type: none"> • Initially introduced by teacher, then becomes a student-directed activity
Materials		Considerations
<ul style="list-style-type: none"> • Egg cartons, Safety Scissors, Glue, Paint, Paintbrushes, Water containers, Decorations, Recycled decorations (scraps of fabric, ribbon, etc.), Pipe cleaners, Leaf template 		<ul style="list-style-type: none"> • Teacher will leave a completed caterpillar for students to look at • Teacher will collect images of caterpillars (mixture of real and cartoon) for ideas
Accommodations		
<ul style="list-style-type: none"> • Images of caterpillars will be present (for visual learners) 		
Stage 3: Learning experience and instruction		
Motivational Hook (10 MINS.):		
The class will use this activity during a unit on bugs or butterflies. It will be only one activity of many and students will get to choose which learning centre in which they would like to participate.		
Open (3 MINS):		
Teacher will introduce new learning centre to the class. Explain the instructions for the centre and present the finished caterpillar as an example. The centre will be student-directed (in that the teacher does not always need to be present during the activity).		

Body (2 Periods of 15 MINS):
<p>(Part One): Small groups of students will circulate among other activities as well as the egg carton caterpillar centre. Students at the centre will already have the egg cartons cut for them and begin painting using the colors of their choice. When they are satisfied with their painting, they will leave their caterpillars to dry and decorate later.</p> <p>(Part Two): Students will return to centre once the paint is dry. They will choose from a variety of decorations to decorate their caterpillars (foam pieces, glitter, stickers and other recycled materials such as ribbon and scraps of fabric) as well as add antennae and legs with pipe cleaners. Once the caterpillar is finished, students may cut out their leaf and attach the caterpillar with glue.</p>
Close (10 MINS):
<p>Once the caterpillar is complete, the student will show their teacher their work. The teacher will ask him or her questions orally about the process in which it was made. Finally, the caterpillars will be displayed in the classroom for the other students to look at.</p>
Link to Future Lessons
<p>This lesson will link to future lessons in science (when studying the process of growing from caterpillar to butterfly) and art (artistic expression, artistic appreciation)</p>
Assessment
<p>Teachers will ask students which materials they used to create their caterpillar and why they chose them ("I used red paint for my caterpillar because it is my favourite colour.")</p>

Grade 1

Title: Helping our Community, Helping the Planet		Subject/Course: Social Studies	Time: 50 minutes
Strand: Heritage & Citizenship: Relationships Rules and Responsibilities		Grades: 1	
Lesson Description			
In this lesson students will review different responsibilities that one has in the community and relate them to an environmental perspective.			
Stage 1: Desired Results			
Fundamental Concepts/Skills			
<ul style="list-style-type: none"> Environmental awareness Individual contributions to the community 			
Big Ideas/Essential Question			
What is the connection between our responsibility to our community and our responsibility to the environment?			
Ontario Curricular Overall Expectation			
Students will explain how and why relationships, rules and responsibilities may change over time and in different places.			
Ontario Curricular Specific Expectation			
Describe how they follow the rules about respecting the rights and property of other people and about using the shared environment responsibly (e.g. By sharing, being courteous, cooperating, not littering)			
Lesson Goals			
<ul style="list-style-type: none"> Have students understand the impact that their individual actions can make on our environment and how environmental decisions can have an impact on their community. 			
Key concepts and/or skills to be learned/applied:		Background Knowledge:	
<ul style="list-style-type: none"> Responsibilities to the environment as community members 		<ul style="list-style-type: none"> What does it mean to be part of a community 	
Stage 2: Planning learning experience and instruction			
Student Groupings		Instructional Strategies	
<ul style="list-style-type: none"> Students will be sitting together for the beginning of the lesson Students will partake in a think pair share Students will complete individual work 		<ul style="list-style-type: none"> Interactive Direct Instruction 	
Materials			
<ul style="list-style-type: none"> Chart paper Markers Students will each receive three pieces of construction paper 			
Accommodations			
<ul style="list-style-type: none"> Students workload can be minimized if it is so required 			
Stage 3: Learning experience and instruction			
Motivational Hook (5 MINS.):			
Ask students to imagine three different scenarios.			
<ol style="list-style-type: none"> What would happen if all everyone in the classroom decided not to throw their garbage in the garbage can but on the ground? What would happen if we decided not to recycle anymore? What would happen if ... 			

Open (10 MINS):
<p>This lesson will begin with a general class discussion on our responsibilities to our community, what students believe are important roles that we must play.</p> <p>Ask students, where does the environment fit in? Do we have a responsibility to environment? Why?</p> <p>What does “shared environment” mean?</p> <p>Teacher will record answers on board.</p> <p>This will lead into a discussion about the ways we treat the environment and its impact on our community.</p>
Body (20 MINS):
<p>Ask students, what is our responsibility to the environment?</p> <p>Students will partake in a think pair share to discuss with their “neighbor” what are the different ways they can help out the environment and why it’s important to their community</p> <p>Students will then discuss their findings with the class.</p> <p>The teacher will record both answers on an anchor chart.</p> <p>Students will be making a class-wide contract to the environment and community they live in.</p> <p>Students will be asked to write or draw three ways that they can help the environment.</p>
Close (15 MINS):
<p>Students will present their ideas to the class and then with the teacher’s assistant they will hang it up on a wall.</p> <p>All of the student work will be hung on a board entitled “My Promise to the Earth” so that they can see it every day as a reminder of the ways in which we can take care of our environment.</p>
Assessment
<ul style="list-style-type: none"> • Anecdotal assessment notes can be taken on student’s ability to transfer their knowledge of the environment to practical applications within the community and their responsibility as community members.

Grade 2

Title: Recyclable Creatures		Subject/Course: Science and Technology		Time: 1 hour 30 minutes	
Strand: Understanding Life Systems: Growth and Changes in Animals				Grade: 2	
Lesson Description					
Students will engage in a class discussion about why animals have certain features and why they need them to survive. Following the discussion students will be given the opportunity to create their own animals using recyclable materials . Students are responsible for designing and constructing their animal, as well as writing about where it lives, what it eats, and what essential features their animal has in order for it to survive in its environment.					
Stage 1: Desired Results					
Fundamental Concepts/Skills					
<ul style="list-style-type: none"> - Structure and Function - Sustainability and stewardship - Environmental awareness or reusable materials/recyclables 					
Big Ideas/Essential Question					
<ul style="list-style-type: none"> • Animals have distinct characteristics (overall expectations 2 & 3) • There are similarities and differences among different kinds of animals (overall expectation 2) 					
Ontario Curricular Overall Expectation					
<ul style="list-style-type: none"> • <i>2. Investigate similarities and differences in the characteristics of various animals</i> • <i>3. Demonstrate an understanding that animals grow and change and have distinct characteristics</i> 					
Ontario Curricular Specific Expectation					
<ul style="list-style-type: none"> - <i>2.2: Observe and compare the physical characteristics of a variety of animals</i> - <i>2.5: Investigate the ways in which a variety of animals adapt to their environment and/or to changes in their environment</i> - <i>3.1: Identify and describe the major physical characteristics of different types of animals</i> - <i>3.2 : Describe an adaptation as a characteristic body part, shape or behaviour that helps a plant or animal survive in its environment</i> 					
Lesson Goals					
<ul style="list-style-type: none"> • Students will design and construct their own animals • Students will develop an understanding of how recyclable materials can be reused to create art • Students will develop a creative description of what their animals eat, where it lives, it's strengths/weaknesses • Students will gain an understanding of what features are necessary in order for their animals to survive in the environment they have chosen (water, land, forest, jungle, etc) • Students will learn the major physical characteristics of different animals and apply the characteristics/body parts/behaviours to their own animal. 					
Key concepts and/or skills to be learned/applied:			Background Knowledge:		
<ul style="list-style-type: none"> • Physical characteristics of animals • Characteristic body part, behaviour or adaptation that an animal needs in order to survive in its environment. • Creating an animal 			<ul style="list-style-type: none"> • Students are aware of the major physical characteristics of different types of animals (in this lesson they will be applying that knowledge in order to create their own animal) • **This lesson plan is precluded by 3 other lesson plans – previous plans will teach students about life cycles, physical characteristics and environments. 		

Stage 2: Planning learning experience and instruction

Student Groupings	Instructional Strategies
<ul style="list-style-type: none"> Individual assignment Think-pair-share (presenting animal to partner) Group discussion about what types of animals the children have created 	<ul style="list-style-type: none"> Think-pair-share, group discussion, writing in science journals, drawing their animal, graphic organizer through the use of a 'graffiti poster'
Materials	Considerations
<ul style="list-style-type: none"> Recyclable materials <ul style="list-style-type: none"> Paper towel rolls, toilet paper rolls, cereal boxes, Kleenex boxes Construction paper, straws, Egg cartons, string, newspaper, cardboard, buttons, feathers, etc. Glue, tape, scissors, markers, crayons Chart paper and post-it notes for graphic organizers Cubes for cubing activity 	<ul style="list-style-type: none"> Inform students a few weeks in advance of the lesson and have children bring in materials from home. Telling students what we'll be doing in advance will give them the opportunity to begin brainstorming about their animal. If children can't decide what kind of animals they'd like to make, have examples ready or brainstorm with the class.
Accommodations	
<ul style="list-style-type: none"> <u>Enrichment</u>: have students create a story about the life of their animal and the future it may face <u>Enrichment</u>: have students present their animals to family members or another class Provide students with examples if they are having difficulties creating their own animal Brainstorm with the class different features animals have, and how these can be combined to create a new animal Make a list of animal features so students have a visual aid Adaptations for students should be on a case by case basis. The important focus should be creating a hypothetical animal that could live in a real environment 	

Stage 3: Learning experience and instruction

Motivational Hook (15 MINS.):
<ul style="list-style-type: none"> Open up discussion to the class: What is the strangest looking animal you have ever seen? How do you think it got that way? Why does it have those specific features (ex. fur, claws etc)? <i>Provide students with pictures of real animals we will be discussing.</i> Following my discussion with the class, and why animals have certain features (review of previous lesson) introduce the animal I have created to the class. Describe to students what my animal is, its name, where it lives, what it eats, and why I added certain features to my animal. For example, <i>my animal has sharp claws because it lives in the forest and needs its claws to climb tall trees to get its food, and to scare predators.</i> Answer any questions the students may have about my animal. Describe to students how I made my animal – what materials did I use? Discuss where I found these recyclable materials, and how they can be reused for art
Open (15 MINS):
<ul style="list-style-type: none"> Introduce activity to students. Inform students that they will be designing and constructing their own animal. Remind students of the different features we've been talking about, and how different animals have different characteristics (ask students for a few examples) Create a Graffiti Visual -<u>Graphic Organizer</u> with the class: <ul style="list-style-type: none"> Have students write different animal characteristics and materials they can use to create their animal on post-it notes Students will place their post-it notes on posters with the headings "Materials" and "Characteristics"

- A class discussion will follow. Have students talk about what they wrote, why etc.
- With the class, create a checklist of things they have to do so the expectations are clear. Each student will:
 - Draw a picture/sketch of what they want their animal to look like. Students will show this drawing to the teacher before they move on to creating their animal.
 - Label the picture (body parts, special features) and jot down ideas about what materials would be best for creating their animals/which materials they want to use for each part.
- Students will consider the following questions before creating their animals
 - Where does your animal live?
 - What physical features (body parts, behaviors) does it need in order to survive in that environment? (Ex. wings, fins, claws, patterns on its skin etc)
 - What does your animal eat?
 - What is your animal's name?

Body (40 MINS):

- Based on the sketch/picture of their animals, students will begin constructing their animal with the recyclable materials that have been provided or with materials they have brought in from home.
- Monitor students and provide assistance where necessary
- Remind students that their animal's features/body parts have to serve a purpose – what will help the animal survive in the environment they have chosen?

Close (20 MINS):

- In their science journals, have students record a description of their animal. Students can write about;
 - Where their animal lives (describe the environment)
 - A special feature their animal has in order to survive in that environment
 - What the animal eats etc.
 - Students can also record how they made their animal, what materials they used.
- After students have finished writing in their journals, have them pair up with an elbow partner and present their animal to their classmate. Have students tell their partner everything about their animal, how they made and how they came up with the idea.
- After students have finished discussing in partners, conduct a 'popcorn discussion' as a class. Ask students something they found interesting about their partners animals.
- **Cubing:** students will work in partners to answer questions found on the faces of the cube.

Link to Future Lessons

- In future lessons students can create a story using their animal as the main character, students could also incorporate their classmates animals
- Students can link their animal to the life cycle – how would your animal grow and evolve?
- Students can discuss how their animals positively or negatively affects the environment, and how the environment affects their animal
- This lesson can be linked to *Understanding Earth and Space Systems: Air and Water in the Environment*. Students can learn more about the environment their animals lives in
- This lesson can also be linked to Grade 2 Visual Arts. Specific Expectation 1.4: *use a variety of materials. Tools, and technology to respond to design challenges* (In this case, the students would use sculptures)
- Students can also create a puppet show using their animals
- This lesson can be link to an activity using a Choice Board:
 - Kinesthetic: kinesthetic learners will create a dramatic presentation using their creatures
 - Visual: visual learns will use the BITSTRIP program to create comic strip involving their creatures
 - Linguistics: linguistic learns will write a short story about their animals

Assessment

- Collect student's sketches of their animals. Did they draw and label their animal?
- Collect science journals. Is there evidence of deep thinking, did students consider where their animal was living and what features were essential to its survival?
- Observation: observe students while they are creating their animal. Observe students during discussion with elbow partner.
- Take note of who participated in the 'popcorn discussion'
- Evaluation of animal construction. Did students use materials appropriately? Is it similar to their sketch? Are features of animal evident? Creative design?
- For **cubing activity** – evaluate students answers of the following questions:
 - Analyze: how is it made or what is it composed of?
 - Argue for/against it: take a stand and list reasons for supporting it
 - Associate: what does it make you think of

Title: Environmental Acting	Subject/Course: The Art	Time: 55 minutes
Strand: Drama	Grades: 2	
Lesson Description		
In this lesson, students will be learning about the different ways we waste and incorporating their dramatic skills.		
Stage 1: Desired Results		
Fundamental Concepts/Skills		
Waste management habits. Using the element of role.		
Big Ideas/Essential Question		
What are the different ways we can incorporate positive environmental habits into our everyday life?		
Ontario Curricular Overall Expectation		
Creating and Presenting: apply the creative process to dramatic play and process drama, using the elements and conventions of drama to communicate feelings, ideas, and stories;		
Ontario Curricular Specific Expectation		
demonstrate an understanding of the element of role by communicating thoughts, feelings, and perspectives appropriate to the role being played (<i>e.g., devise and share a group mime showing how characters respond to the tension in a situation of conflict, departure, or anticipation; use voice expressively to convey an interpretation of a character's attitude</i>)		
Background Knowledge:		
What it means to recycle.		
Stage 2: Planning learning experience and instruction		
Student Groupings	Instructional Strategies	
<ul style="list-style-type: none"> • Together as a class • Groups of four 	<ul style="list-style-type: none"> • Interactive • Experiential 	
Materials		
<ul style="list-style-type: none"> • Different recyclable items • Situational cards 		
Stage 3: Learning experience and instruction		
Motivational Hook (10 MINS.):		
Teacher will have a bag full of different recyclable items (i.e. Glass bottles, pop cans etc.) The bag will be passed around and each student will have the opportunity to reach in and pick one out The students will be asked what these items could be used as aside from their original purpose (ex. A glass bottle can be used as a vase)		
Open (10 MINS):		
Teacher will conduct a conversation with students about the importance of recycling. Conduct a think-pair-share about different ways we can manage our waste.		

Body (20 MINS):

Students will be divided into groups.

Each group will be given a scenario in which they can incorporate a positive waste management habit.

As well they will be given a recyclable item to be used as a prop to incorporate into their skit.

Students will have 20 minutes to put together a small skit incorporating the above.

Close (15 MINS):

Students will present their skits in front of the class.

There will be a discussion about the different waste management solutions that students came up with and how we can incorporate that into our daily lives.

Assessment

Students will be assessed on their ability to use the elements of drama as well as their ability to utilize their knowledge of waste management into their performances.

Grade 3

Title: Role Play		Subject/Course: Language Arts		Time: 60 minutes	
		Strand: Oral Communication		Grades: 3	
Lesson Description					
- Have students take on different roles that are present within their community, and identify ways in which those individuals can help in becoming more environmentally friendly.					
Stage 1: Desired Results					
Ontario Curricular Overall Expectation					
2) Use speaking skills and strategies appropriately to communicate with different audiences for a variety of purposes					
Ontario Curricular Specific Expectation					
2.2) Interactive Strategies, 2.3) Clarity and Coherence, 2.4) Appropriate Language, 2.5) Vocal Skills and Strategies, 2.7) Visual Aids					
Lesson Goals					
- Allow students to understand what can be done within their community to promote environmental sustainability					
Key concepts and/or skills to be learned/applied:			Background Knowledge:		
- Environmental awareness, and more sustainable practices			- Students will be able to demonstrate their current practices at home in regards to being environmentally friendly, but will also learn about what more they can do		
Stage 2: Planning learning experience and instruction					
Student Groupings			Instructional Strategies		
- Small groups (4 or 5)			- Co-operative learning		
Materials					
- Chart paper, markers, tape,					
Considerations					
Students may not be able to relate to certain roles if they are not familiar, or present within their community					
Accommodations					
- If students are having trouble with their designated role, allow them to choose a role they are most familiar with					
Stage 3: Learning experience and instruction					
Motivational Hook (5 MINS.):					
- Bring students to the front of the class and ask which roles are present in their community. Upon completing, choose which roles will be examined in the lesson.					
Open (2MINS):					
Break students up into their groups of 4 or 5. Choose groups randomly, allowing for students to work with students they may otherwise choose not to.					
Body (30 MINS):					
- Once students have been given their roles, allow them to work in a space within the classroom. If the class has a computer, allow students to conduct research. Circulate the class ensuring that students are on task and address any questions that may arise. Once students have identified ways in which those roles can help in becoming environmentally friendly, allow them to write their findings on the chart paper. Once all students have completed their respective task, bring all students to the front of the class.					

Close (23 MINS):

- Allow each group to present their findings to the class. After each presentation, ask students if they can identify other ways in which individuals in those roles can help the environment. Allow all groups to present, and showcase their anchor charts within the classroom.

Link to Future Lessons

- After this lesson, students can identify ways in which they can be more environmentally friendly within their classroom, and apply these practices on a regular basis

Assessment

- Students can be assessed on their oral communication skills, or their abilities to work with a group.

Title: "Waste" of Energy	Subject/Course: Physical Education	Time: 45 Minutes
	Strand: Living Skills	Grades: 3
Lesson Description		
<p>4) At the start of this lesson, students will all be given an article of trash. The object of this game is to round the bases as in baseball. Once students have gone "around the bases" they will deposit their item into the landfill at home plate, and will then pick up another.</p> <p>5) To start this game, students will all start at home (which is simply one corner of the gym), students will then pick a partner and engage in "rock, paper, scissors". The winner of the match will then run to the next base. The loser, however, will remain at his or her base. This will continue until the student reaches home and deposits his or her item in the landfill. Once home, the student will receive another item and continue with the game.</p>		
Stage 1: Desired Results		
Fundamental Concepts/Skills		
Understanding how long items last in our landfill, and adapting appropriate strategies.		
Big Ideas/Essential Question		
- Understand how large of an impact we have had on our environment in a short timeframe.		
Ontario Curricular Overall Expectation		
1) Demonstrate personal and interpersonal skills and the use of critical and creative thinking processes as they acquire knowledge and skills in connection with the expectations in the active living, movement, competence, and healthy living.		
Ontario Curricular Specific Expectation		
Personal Skills: 1.1 - 1.5		
Lesson Goals		
- Make students aware of their impact on the environment, and get them to develop appropriate strategies that address these concerns.		
Key concepts and/or skills to be learned/applied:		Background Knowledge:
- Environmental awareness		- Their own practices
Stage 2: Planning learning experience and instruction		
Student Groupings		Instructional Strategies
- Independent		- Modelling
Materials		Considerations
- Gym, trash/recyclable items, bin to act as landfill, answer sheet, calculator		- Students may not be able to run for the 30 minutes, so instruct them to run and walk as needed.
Accommodations		
- For students with physical disabilities, they can act as the landfill site and collect the items and do appropriate calculation that will allow students to understand how many years they have created in our landfills.		
Stage 3: Learning experience and instruction		
Motivational Hook (2 MINS.):		
- Get students familiar with household items that are being used, and explain the activity.		
Open (3 MINS):		
- Get all students at home base, and model the appropriate way of doing "rock, paper, scissors"		
Body (30 MINS):		

- Allow students to engage in the activity, circulate and monitor students to ensure they are completing the task appropriately. As students pass home plate, hand out new items as necessary. Encourage all students to continue their hard work, and reinforce positive behavior. Similarly, probe students to potentially adapt strategies to managing the waste. Address any behavioral issue that may arise. (If there is a discrepancy between students, instruct them to simply play a best of 3 that will allow one student to move on fairly).

Close (10 MINS):

- Once the activity is completed, calculate the amount of trash that was placed in the landfill (A sheet has been provided that corresponds to the amount of years for each item). Get student to predict how long in years they think has accumulated. Tell students the actual amount, and identify how much was accumulated in a short time frame. Hold a discussion where student can showcase any strategies that were developed, or one's that could be adapted to their everyday lives.

Assessment

- Students should only be assessed on their respective work ethic.

Grade 4

Title: Poems of <i>Environmental Awareness</i>		Subject/Course: <i>Language Arts</i>		Time: 60 Minutes	
Strand: <i>Reading, Writing</i>		Grades: 4			
Lesson Description					
Using words from their Environment Themed Spelling List, or a list of Environment Themed vocabulary, students will be required to work individually or in groups of threes to make an Acrostic Poem and present the poem to their class members. Their poem should mention issues towards the word they choose. For example, if they choose “Extinction” their poem should refer to various animals which have been extinct and the reason why they were extinct. If they choose “Recycle” their poem should talk about why recycling is effective and how it helps our environment.					
<u>Stage 1: Desired Results</u>					
Ontario Curricular Overall Expectation					
Reading					
<ul style="list-style-type: none"> Read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning; 					
Writing					
<ul style="list-style-type: none"> Generate, gather, and organize ideas and information to write for an intended purpose and audience; Draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience; 					
Ontario Curricular Specific Expectation					
Reading					
<ul style="list-style-type: none"> Read a variety of texts from diverse cultures, including literary texts, graphic texts and informational texts Demonstrate understanding of a variety of texts by summarizing important ideas and citing supporting details Extend understanding of texts by connecting the ideas in them to their own knowledge, experience, and insights, to other familiar texts 					
Writing					
<ul style="list-style-type: none"> Identify the topic, purpose, and audience for a variety of writing forms Generate ideas about a potential topic using a variety of strategies and resources Gather information to support ideas for writing using a variety of strategies and oral, print, and electronic sources Sort and classify ideas and information for their writing in a variety of ways 					
<u>Stage 2: Planning Learning Experience and Instruction</u>					
Materials			Accommodations		
Environment Themed Vocabulary list Construction paper/Bristol Board Markers, Crayons, Pencils, Erasers Scissors			<ul style="list-style-type: none"> Students can create their poem in French as well as English. Give students the freedom to present their poem in their own creative methods (Rap, Sing, Acting, and Tableau). 		

Stage 3: Learning Experience and Instruction

Motivational Hook:

Read the book "Heroes of the Environment" By Harriet Rohmer.
Choose one story within 'Heroes of the Environment' or you may read the entire book as a read-aloud.

Open:

Create a KWL chart after reading the book.
Ask prompting questions such as
"How can we help our environment?"
"What can we do to reduce waste?"
"List some examples of poor environmental habits?"

Body:

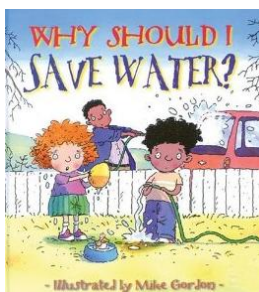
Allow student to work in their poems.
You can choose their vocabulary words for the students or allow them to choose the words themselves.
Have students present their poem to the class once it is completed.
This activity may take more than one class.

Close:

Once the poem is completed, continue to fill out the KWL chart.
Have students explain what they learnt from their poem and a poem presented by their classmates.

Assessment

Using the KWL chart will promote the understanding of student's prior knowledge.
Use the context in the poem to evaluate students understanding of the term and its relation to our environment.



Rationale for Choosing Book for Read Aloud For Environmental Awareness

This book discusses the repercussions of overusing our water supply. This book discusses how wasting water can have devastating effects on our community and the natural ecosystems around us. The book discusses the ways that we waste water in and around our homes on a daily basis. But more importantly, this book discusses strategies that we can implement daily to help control the usage of water in terms of water conservation.

Big Idea/Theme

The big theme is environmental sustainability. Fresh water is a natural resource and eliminating the presence of fresh water can have major effects on our lives, our communities, animals and the various ecosystems. With the author's obvious environmental stance on the situation, readers can evaluate what they can do to waste less water in terms of water conservation. It is important that students be aware that making a small change such as not leaving the faucet on while brushing your teeth can positively affect our environment.

Plan for Delivering Lesson

There are multiple lessons that teachers can use to expand within this read aloud. In terms of developing awareness to preventative strategies to reduce water usage or evaluating how much water a student wastes per week **please see Language Response and Mathematics –Data management Lesson**. The teacher can give options in terms of a **CHOICE BOARD** –when employing these follow up lessons to accommodate and modify for different learning styles as well as students with special needs.

Planning prior to the Lesson

GRADE/DIVISION: Junior Division – Grade 4
<p>OVERALL CURRIRULUM EXPECTATION (#1)</p> <p>Oral communication</p> <ol style="list-style-type: none"> 1. Listen in order to understand and respond appropriately in a variety of situations for a variety of purposes <p>Reading</p> <ol style="list-style-type: none"> 1. Read and demonstrate an understanding of a variety of literary and informational texts using a range of strategies to construct meaning. <p>Writing</p> <ol style="list-style-type: none"> 1. Generate, gather and organize ideas and information to write for an intended purpose and audience. 2. Draft and revise their writing, using a variety of informational, literary and graphic forms and stylistic elements appropriate for the purpose and audience.
<p>SPECIFIC CURRICULUM EXPECTATION(S):</p> <p>Oral Communication</p> <p>1.2 Active listening strategies: demonstrate an understanding of appropriate listening behavior by adapting active listening strategies to suit a variety of situations including work in groups. Students are working together as well as asking relevant questions to clarify meaning and link responses appropriately to the topic of conversation.</p> <p>1.3 Comprehensive strategies: Students are required to follow listening comprehension strategies to assist them in activities done before, during and after a read aloud.</p> <p>Reading</p> <p>1.1 Variety of texts: read a variety of texts from diverse cultures. This book is a fictional story with non-fiction water conservation strategies. This also gives students an insight in on an exposition type book that offers the student's a perspective on a social issue like environmental sustainability.</p> <p>1.5 Making Inferences/interpreting texts: making inferences about texts using stated and implied ideas from the texts as evidence.</p> <p>1.6 Extending understanding: extend understanding of texts by connecting ideas in them to their own knowledge and experience to the text and to the world around them.</p> <p>1.8 Responding to and evaluating texts: express opinions about the ideas and information in texts and use evidence from the text to support their opinions.</p>

Writing

1.3 Research: gather information to support ideas for writing using a variety of strategies. Writing their responses from teacher's read aloud and questions that are asked during the read aloud.

1.4 Classifying ideas: sort and classify ideas and information for their writing in a variety of ways such as using a concept chart before, during and after the read aloud.

2.2 Voice: Establish a personal voice in their writing

TEXT (Fiction/Non-Fiction)*may be cross curricular.

This text is a fictional story however implements realistic water conservation strategies. Also this text incorporates text forms such as exposition and narrative.

Title: Why Should I Save Water?

Author: Jennifer Green

Illustrator: Mike Gordon

ISBN and Year of Publication: 764131575, 2005

Publisher: Barron's education series

TEACHER FOCUS - PURPOSE: What might be the deeper meaning in the text? (Author's message, Big Idea, Theme or critical understanding)

The purpose of this book is recognizing the importance of conserving a natural resource like water.

TEXT INTRODUCTION BEFORE THE READING: How will I introduce the text to help focus the students on the purpose? (Introductory activity: Concept Chart/Anticipation Guide/KWL/Recap statement/etc.)

The students will be played a song before I begin reading the story. We will discuss how this song incorporates the meaning of the book. Finally, students will start filling out their concept charts. This chart will be filled out before, during and after the reading.

STOPPING PLACES DURING THE READING:

Stopping Place #1 Question/Think aloud

"It's interesting when the author first discusses how it has not rained much lately. This shows how important and essential rain water is to our environment. This should give us more reason to save water, because we never know when there might be a rain drought."

Stopping Place #2 Question/Think aloud

“These are great examples of the consequences of wasting water. Wasting water would have devastating effects on not only our homes and within our community but also the environment and ecosystems. In addition, having no water impacts the health and well being of us, but also animals, plants, and other living things”

Stopping Place #3 Question/Think aloud

“It’s encouraging to see that the author has created a suitable ending where people’s views of water use have changed. It shows that one person can truly change the perspectives of the individuals close to him to save water.

CLOSING AFTER THE READING: How will I close the book to help my students to reflect on the deeper meaning? What will be my “Big Idea” question?

Students will complete their concept chart and also orally respond to a question that relates to the 3rd question/think aloud. This will hopefully spark a discussion or debate within the class about water conservation and if one individual can make a difference.

READING RESPONSE: What reading response (oral? Written?) Would provide an opportunity for my students to express their understanding?

→Students will complete a written response that outlines how much water they use every day using page 12-13 as a reference point. They will discuss how much water they use or their family uses in a week and then discuss or implement their water-saving ideas and how much water they could potentially save.

NEXT STEPS: What will I have my students do next with the new learning? (See list below)

→Students can identify the various forms of water we come across in every day of our lives

→Students can read another book by Jennifer Green and discuss the relationship between both books or the new Big Idea (Environmental sustainability)

DIFFERENTIATION: How and where will I differentiate to support the needs of all students? (Content, Process, or Product)

- I will differentiate this lesson by modifying the process of the reading response which will change the end product
- I will differentiate this lesson by modifying content of the concept chart

Planning the Read Aloud Lesson

BEFORE you read - How will I introduce the text to help focus the students on the purpose?

Engagement/Introduction

- Build interest
- Activate prior knowledge, experience and learning
- Concept Chart

Focus:

- State the focus of the lesson at the beginning (Big Idea/Theme)
- Give title, author etc.
- Establish relevant context for the new learning
- Introduce new vocabulary *if applicable

BEFORE you read - How will I introduce the text to help focus the students on the purpose?

Engagement/Introduction:

The idea of water conservation will be addressed through a song.

“Okay boys and girls before I tell you about today’s read aloud, I want to play you a song called “water, water, wise” I want you to listen to the song carefully and then we will discuss how this may apply to the book I will be reading to you.”

Appropriate Student response: *“The lyrics suggest that we should be smart with water. The lyrics also tell us how to save water in our homes. This may connect with the book because the book may give us strategies on how to conserve water.”*

I will then describe the concept chart on the board that I want students to fill out before, during and after the read aloud.

“So today, I will get you to complete a concept chart that touches upon the idea of conserving water. This chart will have 6 categories and I will expect you to fill out the appropriate sections before, during and after I read this book. First, I want you to simply take a couple minutes to discuss with your elbow partners some examples from your own life where you have conserved water. Also I want you discuss examples where you have not conserved water. Then I want you to list these in the appropriate categories on the concept chart.”

Concept Chart will touch upon the idea of Conserving water.

Before-

Examples from the student's life of how they can/have conserved water

Examples from the student's life of how they have not conserved water

During-

Examples of consequences that arise from not conserving water (from the book)

After-

Examples of consequences that arise from not conserving water (Not from the book)

Examples of strategies used by the main character to conserve water

Examples of ways that the main character did not conserve water

Focus:

"Today's focus will be on the idea of recognizing the importance of conserving natural resources such as water. Water is a natural resource and eliminating the presence of clean water can have major effects on our lives, and our communities. I want you to try to grasp the author's stance on this situation and evaluate how the book gives insight to readers as to how and why individuals should conserve water. The book is called "Why I should save water?" by Jennifer Green."

DURING as you read - Where will the stopping places be for think alouds/questions that would help my students construct the deeper meaning? *Connect to the Author's message, Big Idea, Theme or critical understanding.

- 3+ stopping places

DURING as you read - Where will the stopping places be for think alouds/questions that would help my students construct the deeper meaning? *Connect to the Author's message, Big Idea, Theme or critical understanding.

Stopping Place #1 Question/Think aloud

Stop at page 10 after "Kirsty said that it hadn't rained much lately..."

"It's interesting when the author first discusses how it has not rained much lately. This shows how important and essential rain water is to our environment. This should give us more reason to save water, because we never know when there might be a rain drought."

This will hopefully make students realize how water has various forms, and that rain from the sky is needed to maintain environments and ecosystems. Students may realize that there will not be plenty of water to use if there is a drought if we do not conserve this natural resource. In contrast, students may realize that with the given climate change, it is the unpredictability of rain and when it comes, in terms of increasingly

severe heavy rain that we have today rather than the gentle and more frequent way. Students may want to write this down on their concept chart.

Stopping Place #2 Question/Think aloud

Stop after page 19 “and some animals would be really unhappy without water too”

“These are great examples of the consequences of wasting water. Wasting water would have devastating effects on not only our homes and within our community but also the environment and ecosystems. In addition, having no water impacts the health and well being of us, but also animals, plants, and other living things”

This should give students a global perspective on how water affects not only our lives but other living things in different ecosystems/environments. This should trigger students in terms writing these examples down under **consequences that arise from not conserving water found in the book** on their concept chart.

Stopping Place #3 Question/Think aloud

Stop after page 28 “It’s good to know that we’re doing something to help the environment”

“It’s encouraging to see that the author has created a suitable ending where people’s views of water use have changed. It shows that one person can truly change the perspectives of the individuals close to him to save water.

This will allow students to recognize the author’s tone and perspective on the topic of conserving water. It also may encourage critical thinking in terms of whether or not one individual can make a difference. It is a difference that not only changes his family’s attitude on water conservation but also the environment around him.

AFTER you read the text - How will I close the book to help my students to reflect on the deeper meaning? What will be my “Big Idea” question?

- Restate focus to consolidate learning
- Provide Big Idea question

READING RESPONSE: What reading response would provide an opportunity for my students to express their understanding? (Choose one and explain)

- Oral
- Written
- Other

NEXT STEPS: What will I have my students do next with the new learning? (Choose one and explain)

- Revisit the same text with different purposes
- Revisit same focus with different text
- Plan guided reading lessons based on the same focus
- Connect focus to the Shared Reading lesson

AFTER you read the text - How will I close the book to help my students to reflect on the deeper meaning? What will be my “Big Idea” question?

*Explicitly describe what you will do with and what you will say to the students. * *Use*

italics to indicate when the teacher is talking

“It’s encouraging to see that the author has created a suitable ending where people’s views of water use have changed. It shows that one person can truly change the perspectives of the individuals close to him to save water.”

Students will complete their concept chart

“So now that the book has been read, I would like for you to complete your concept chart by filling in the last 3 sections that include: Examples of consequences that arise from not conserving water (Not from the book), examples of strategies used by the main character to conserve water, and examples of ways that the main character did not conserve water.”

Orally respond to a question relating to the 3rd think aloud.

“I want to reflect on what I was saying earlier about how the author has made it clear that one individual can make a difference in the way other people view conserving water. By doing this the author believes people can make a significant difference to change the landscape of our environment. I want to personally ask you “Do you think one person or one family can make a difference in terms of saving or conserving the amount of water they use? Does this really help our environment?” Let’s hear some opinions!”

This will hopefully spark a discussion or debate within the class about water conservation and if one individual can make a difference. This may offer pessimistic perspectives in terms of one person using strategies to conserve water will merely be a ‘band aid’ rather than a resolution to this issue. The impact of one family conserving water will not account for the overuse of this natural resource by companies, or factories etc. I want to see that students are bringing different perspectives to this discussion.

LANGUAGE RESPONSE: What reading response would provide an opportunity for my students to express their understanding?

→Students will complete a written response that outlines how much water they use every day using page 12-13 as a reference point. They will discuss how much water they use or their family uses in a week and then discuss or implement their water-saving ideas and how much water they could potentially save.

“Alright boys and girls I would like for you to complete a short response exercise. I know that this book discussed many strategies on how to conserve water. But wouldn’t it be interesting to see how you can implement these strategies if you could measure how much water you actually use each day. I want you to look at the chart, which is taken from page 12-13 and use this as a reference for how many liters of water you use doing daily things such as showering or using the dishwasher. I want you to create a list estimating how much water you use for an entire week. Then I want you to discuss strategies from the book or use your own water-saving ideas. Lastly, I would like for you to relate these water-saving ideas to how it may benefit you and your family.”

Example: 10 liters of water is in a bucket, 15 liters of water taking a shower and washing dishes by hand, 30 liters to use a dishwasher and 60-100 liters on average to take a bath and to use a washing machine.

MATHEMATICS- Data Management:

→ This part of the lesson will link data management to environmental awareness in terms of how much water students waste per week at home. The teacher will look at measurable units that can assist the student in terms of recording how much water they/their family wastes a night. This would include examples of leaving the tap on, or taking showers, using the dish washer etc. Students will record from either a math journal or a pre-made chart/calendar. Students will then work in groups to create a graph (give choices in terms of appropriateness for types of graphs to depict) of the amount of water used per week, as well as the average amount of water used. The teacher can create a round table discussion to compare homes, or encourage responses of how to reduce the mass use of water in the student's homes.

Example: 10 liters of water is in a bucket, 15 liters of water taking a shower and washing dishes by hand, 30 liters to use a dishwasher and 60-100 liters on average to take a bath and to use a washing machine.

NEXT STEPS: What will I have my students do next with the new learning?

1)

→ Referencing back to the 1st think aloud *"It's interesting when the author first discusses how it has not rained much lately. This shows how important and essential rain water is to our environment. This should give us more reason to save water, because we never know when there might be a rain drought."*

→ I can assist students in discussing the various forms of water that we come across in our everyday lives, including lakes and rivers, salt water in the sea, ice and moisture in the air that takes form in clouds which later shed rain. Introduce how rain water is essential because that can be the water that reaches our homes. As well we can discuss how water is treated and purified in plants, which make it safe for us to drink. Furthermore I can discuss how sewage plants treat the dirty water so it doesn't pollute the natural world.

→ This activity also allows the students to expand on their vocabulary with words including **rationing, environment, drought, sewage, and pollution**

2)

→ Follow up activity is taking another book by Jennifer Green like "Why should I recycle?" or "Why should I save energy" and then have the students discuss how these books corroborate with this book. Is there an even bigger idea in her books?

DIFFERENTIATION: How will I differentiate to support the needs of all students? (May check off more than one and Explain)

- Content
- Process
- Product

DIFFERENTIATION: How will I differentiate to support the needs of all students?

- ➔ I will differentiate this lesson by modifying the process of the reading response which will change the end product
“Boys and girls, in terms of the reading response activity I will allow you to create visuals that show me how you will implement these water-saving strategies. I would like to see full page drawings of these strategies and a little description at the bottom about what the visual is describing. I also would accept a comic strip of ways you could conserve water if you want to use the Bit strip program on the computer.”
- ➔ I will differentiate this lesson by modifying content of the concept chart
“Instead of writing more than 2 examples for each category, it will be acceptable that you give me 1 solid example for each section.”

Title: Garbologist	Subject/Course: Science and Technology	Time: 60 minutes
	Strand: Understanding Life Systems	Grades: 4
Lesson Description		
- Student will be given a worksheet where they are able to predict how long pieces of household waste take to decompose in a landfill. The objective of this lesson is to get students to understand long items actually take to decompose.		
Stage 1: Desired Results		
Fundamental Concepts/Skills		
- Make smarter choices when it comes to waste, and waste management.		
Big Ideas/Essential Question		
- Students will begin to understand the impact their choices have on our environment.		
Ontario Curricular Overall Expectation		
1) Analyse the effects of human activities on habitats and communities.		
Ontario Curricular Specific Expectation		
1.1) Analyse the positive and negative impacts of human interactions with natural habitats and communities. 3.4) Demonstrate an understanding of a community as a group of interacting species sharing a common habitat.		
Lesson Goals		
- Make students aware that as we progress into the future, our choices must be geared to creating a better planet.		
Background Knowledge:		
- Their own recycling practices at home and in the classroom.		
Stage 2: Planning learning experience and instruction		
Student Groupings	Instructional Strategies	
- Students will work independently	- Class discussion after completion of worksheet	
Materials		
- Worksheets, chart paper, markers, pencils, erasers.		
Accommodations		
- Students who have difficulty with fine motor skills (writing) may express their responses orally, or could be partnered up with another student.		
Stage 3: Learning experience and instruction		
Motivational Hook (5 MINS.):		
- Bring students to the front of the class and ask them what they had for lunch. Write down a few items, and ask students if they recycled or not. Once students begin to understand how many items should have went into the recycling bin, tell them that we will now take a closer look into how long these items will last at our local landfill. Tell them that we are now going to be "Garbologists". Ask students what are Garbologist is (One who study's garbage)		

Open (5 MINS):

- Provide students with instructions on how to complete the worksheet. The worksheet is front and back and is to be completed independently. Send all students back to their designated seats, and instruct them to begin worksheet.

Body (30 MINS):

- As students complete the worksheet, cycle around the classroom providing any assistance that is required. Items on the worksheet are linked in some way, and students may or may not make the appropriate connections (Rubber puck, and rubber boot: both made of rubber). Once students are completed the worksheet, instruct them all to come to the front of the class to see how close their predictions were. On chart paper, draw the first item of the worksheet. Beside each item there will be a place for student predictions and the actual answer. Go through each item with students and see how close they actually were.

Close (10 MINS):

- Once the chart paper has addressed all items on the worksheet, hold a discussion with students about the findings. It is expected that students will be extremely shocked at the new results and to see how long items last. Gear the discussion towards the students making greener choices!

Link to Future Lessons

- This lesson is directly linked with a physical education lesson that will solidify student learning.

Assessment

- As part of the worksheet, students are expected to answer five questions. These responses could be marked for writing competency and use of required skills.



Worksheet: How Long Does Trash Last?

Name: _____ Date _____

Instructions: Fill in the chart below. Provided your best guess to how long each item of trash will last in a landfill site. One completed, fill in the question listed on page 2.

How long you think it will take to decompose	Items	Your order of decomposing time (shortest to longest 1-12)	Actual time the item spends at a landfill site
	Pop Can		
	Banana		
	Bath Towel		
	Glass Bottle		
	Boots		
	Paper Bag		
	Plastic rings for pop cans		
	Plastic juice bottle		
	Hockey Puck		
	Styrofoam		
	Sock		
	Soup Can		

1) Describe your impression of a landfill site.

2) What item(s) listed in the chart, if any, have anything in common? Why?

3) What will happen to these items if they end up in our landfill?

6) Which item do you think will take the shortest time to decompose? The longest? Why?

5) What are some key ways that we can help our environment? What things can we do every day?

How Long Does Trash Last?

Answer Sheet

- Banana—3 to 4 weeks
- Paper bag – 1 month
- Bath Towel – 5 months
- Sock – 1 year
- Boots – 40 to 50 years
- Hockey puck – 50 to 80 years
- Tin can (soup or vegetable can) – 80 to 100 years
- Aluminum can (soda pop can) – 200 to 500 years
- Plastic 6-pack rings – 450 years
- Plastic juice bottle – 1 million years
- Styrofoam cup—unknown? Forever?
- Glass bottle – unknown? Forever?