### Earth Day Every Day

### Lessons for Sustainable Practice



Grades 4, 5 and 6



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### Learning Standards

First Peoples concepts of interconnectedness in the environment the nature of sustainable practices around BC's resources First Peoples knowledge of sustainable practices everything in the environment is one/connected (e.g., sun, sky, plants and animals) and we have a responsibility to care for them Experience and interpret the local environment Identify First Peoples perspectives and knowledge as sources of information With support, plan appropriate investigations to answer their questions or solve problems they have identified Contribute to care for self, others, and community through personal or collaborative approaches

### Learning Standards



- Develop a plan of action to address a selected problem or issue
  - Collect and organize information to support a course of action.
  - Individually, or in groups, implement a plan of action to address a problem or issue (e.g., fundraising campaign, clothing or food drive, letter writing to a politician, editorial in the school or community newspaper, petition).



### SOCIAL RESPONSIBILITY CORE COMPETENCY

interdependence of people with each other and the natural environment; to contribute positively to one's family, community, society, and the environment; to resolve problems peoceivity, to empathiae with others and appreciate their Social responsibility involves the ability and disposition to consider the perspectives; and to arease and maintain healthy relationships.

## Contributing to the community and caring for the environment

environment and can work to community and the natural actions and the actions of make positive change. I can identify how my others affect my

positive, sustainable change. I can take thoughtful actions to influence

# Contributing to community and caring for the environment

- With some support, I can be port of a group.

  I can participate in deseroom and group activities to improve the deseroom, school community, or natural world.

  I contribute to group activities that make my deseroom, school, community, or natural world a better place.

  I can identify how my actions and the actions of others affect my community and the

# ing problems in peaceful ways

### 3. Valuing diversity

- respectful and inclusive behaviour

- rights, and can identify how diversity is beneficial

## 4. Building relationships

The profiles emphasize the concept of growing and expanding.

They are progressive and additive.



# CRITICAL THINKING

Ortical filtriking involves making judgaments based on neasoning; students consider options; analyze these using specific criteria; and draw conclusions and make judgements. Critical thinking compalency encompasses a set of delities that students use to examine their own thinking, and that of others, about information that they receive through observation, experience, and various forms of communication.

# Question and investigate

I can ask open-ended questions and gather information.

I can consider more than one way to proceed in an investigation.

## 1. Analyze and critique

### mple "I" Statements

- . I can show if I like something or not.
- I can identify criteria that I can use to analyze evidence.
  - an analyze evidence from different perspectives.
- I can reflect on and evaluate my thinking, products, and actions.
- I can analyze my own assumptions and beliefs and consider views that do not fit with them.

# 2. Question and investigate

## Sample "1" Statements

- I can explore materials and actions.
- I can ask ones ended questions and author information
- · I can consider more than one way to proceed in an investigation.
  - I can evaluate the credibility of sources of information.
- I can tell the difference between facts and interpretations, opinions, or judgements.

### 3. Developing ideas

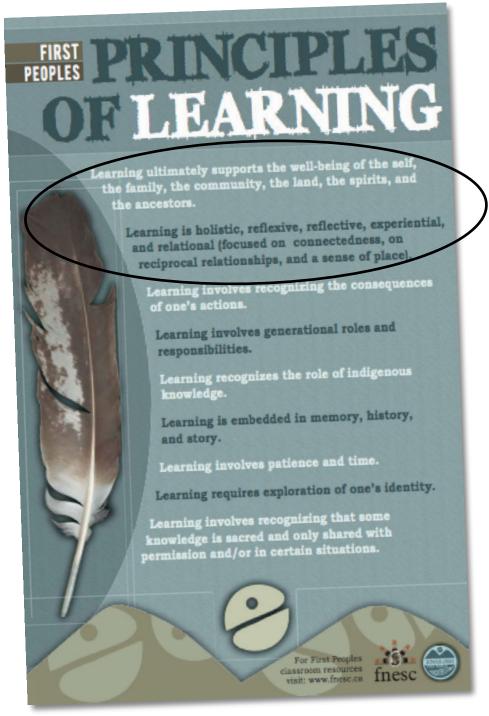
### Sample "I" Statements

- . I can experiment with different ways of doing things.
- I can develop criteria for evaluating design options.
- · I can monitor my progress and adjust my actions to make sure I achieve what I want.

I can make choices that will help me create my intended impact on an audience or situation.

The profiles emphasize the concept of growing and expanding.

They are progressive and additive.



Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).

<u>http://www.fnesc.ca/</u> learningfirstpeoples/

### Lesson 1 ~ Rethink. How much garbage do we produce?

**Big idea:** Complex global problems require international cooperation to make difficult choices for the future.

**Curricular competency:** Use Social Studies inquiry processes and skills to ~ ask questions; gather, interpret, and analyze ideas; and communicate findings.

**Driving questions:** How much garbage do we produce? What goes into the garbage? What can we do differently?

Materials needed: post-it notes, Question Focus Mats, computer, projector and speakers.

**Learning targets:** I can ask open-ended questions and gather information. I can identify how my actions and the actions of others affect my community and the natural environment and can work to make positive change.

### Establishing a need to know:

Question Focus Mat - students work in teams to ask their own deep-thinking questions in response to the following image and statement: The average Canadian produces 2 kilograms of trash per day.

"...leading a process in which your students will be thinking and working by asking their own questions rather than responding to the questions you ask." (Rothstein & Santana, 2017, p.4)



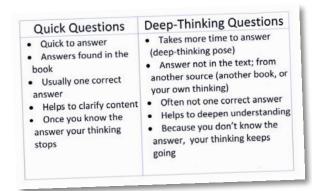
### Provide students with the following guidelines for asking questions:

Ask and jot down as many questions as you can.

Do not stop to discuss, judge, or answer any of the questions posed.

Write down every question exactly as it is stated.

Change any statement into a question.



Next, invite students to review their questions and consider, "Is this a quick question or a deepthinking question?"

Explore and celebrate students' questions. These questions can help guide the inquiry.



The average Canadian creates 2 Kilograms of trash per day.

### Lesson 1 ~ Rethink. How much garbage do we produce?

**Digging Deeper:** Share the video clip **Trash Me** (1:13)

What would it look like to hold onto every piece of trash you create for an entire month? For 30 days, Rob Greenfield is wearing every single piece of trash that he creates while living just like the average American which creates 4.5 pounds of trash per day.

https://www.youtube.com/watch? v=KH20tkp EhY&t=3s



**Set a purpose for viewing** ~ students are invited to notice, think and wonder. After viewing the short clip jot down your ideas in pictures and words on post-it notes:

- What did you **notice**? ~ Paying close attention to the evidence in the clip and communicating exactly what you saw.
- What do you **think**? ~ Inferring and connecting. Sharing connections, background knowledge, and ideas based on the evidence in the video clip (evidence + my thinking = inference).
- What do you **wonder**? ~ Asking questions. After closely examining the evidence in the video clip, what are you wondering? What questions do you have?

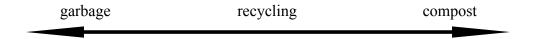
### After viewing the clip:

*Independent reflection time:* Invite students to jot down their ideas; what they noticed, what they think or what they wonder on a post-it note using pictures and/or words.

**Partner turn and talk/listen**: Invite students to turn to someone near to them and ask them to share what caught their attention in the clip.

**Sorting Activity:** as a whole group, invite students to consider and respond to the questions, "What's in your lunch? Where will your snack and lunch waste go today? Can some of it be recycled? Can some of it be reused? Can some of it be taken home and composted?" (Be mindful of not shaming children about their lunches).

Perhaps explore two "teacher lunches" as examples. Have a collection of waste items from a typical bag lunch - empty containers, granola bar wrappers, sandwich baggies, wax paper, apple core, orange peels, etc, and invite students to help you sort these items as garbage, recycling and compostable items.



### Lesson 1 ~ Rethink. How much garbage do we produce?

**Reflect and rethink:** How much garbage do we produce? What can we do differently?

### Possible next steps:

Create a zero-waste lunch menu. Organize a zero-waste lunch in your classroom / at your school (see suggestions that follow this page). To learn more about waste-free lunches, explore the website <a href="http://wastefreelunches.org">http://wastefreelunches.org</a>

**Go Green Express Menu:** Provide time for students to explore the options on the takeaway menu. When student completes an activity, mark their takeaway punch cards. When students complete 10 activities celebrate their accomplishments! (find this menu at the back of this guide)



### ACTIVITY

(a)

# Organize a No-Waste Lunch

Stop lunch trash! Encourage your school to pitch in-instead of pitching trash out-to make a difference. Challenge everyone to participate in a no-waste lunch.



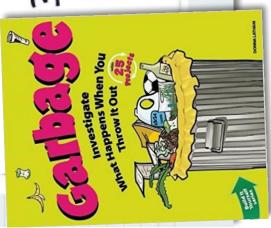
your plans and arrange a date teachers and principal about Team up with a group of for the no-waste lunch. friends. Speak to your

catching design. Incorporate information about items that date on your class or school announcements. Encourage get the word out. Include a Make posters and fliers to clever slogan and an eyeproduce waste and those community to participate. website and during daily that don't. Publicize the everyone in your school

make waste-free lunches a changes will you make for have a debriefing session. How did things go? What After the no-waste lunch, next time? How can you common practice?







### Lesson 2 ~ Reduce. Where does our garbage go?

**Big idea:** Everything in the environment is one/connected (e.g., sun, sky, plants and animals) and we have a responsibility to care for it.

Curricular competency: Use Social Studies inquiry processes and skills to  $\sim$  ask questions; gather, interpret, and analyze ideas; and communicate findings.

**Driving questions:** Where does our garbage go? What is garbage? What isn't garbage?

**Learning target:** I can identify how my actions and the actions of others affect my community and the natural environment and can work to make positive change.

**Materials needed:** post-it notes, computer, projector and speakers.

**Co-constructing ideas:** Where does our garbage go after we put it to the curb for pick up? Invite students to turn and talk with a partner. Then, invite ideas to be shared whole group.

Where does our garbage go? The Comox Valley Waste Management Centre ~ What do they mean by waste management? Where is the Comox Valley Waste Management Centre? 3699 Bevan Road, Cumberland.

### Share and explore the map found here:

https://www.cswm.ca/garbage/facilities-hours/comox-valley-waste-management-centre

### Share the video clip:

Comox Strathcona Waste Management Engineered Landfill Project (1:59).

https://www.youtube.com/watch? time\_continue=9&v=bfaLdZWzip8



**Set a purpose for viewing** ~ students are invited to notice, think and wonder.

After viewing the short clip jot down your ideas in pictures and words on post-it notes:

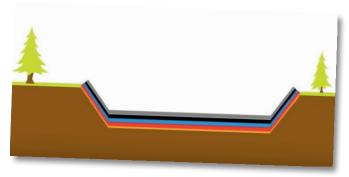
- What did you **notice**? ~ Paying close attention to the evidence in the clip and communicating exactly what you saw.
- What do you **think**? ~ Inferring and connecting. Sharing connections, background knowledge, and ideas based on the evidence in the video clip (evidence + my thinking = inference).
- What do you **wonder**? ~ Asking questions. After closely examining the evidence in the video clip, what are you wondering? What questions do you have?

### Lesson 2 ~ Reduce. Where does our garbage go?

Whole group conversation: The new landfill's liner is the size of 11 CFL football fields! One CFL football field is 150 yards (137 m) long and 65 yards (59 m) wide, within which the goal areas are 20 yards (18 m) deep, and the goal lines are 110 yards (101 m) apart. Including the end zones, the total area of the field is 87,750 square feet (8 152 m<sup>2</sup>). How big is the new landfill? (One acre = 4 047 m<sup>2</sup>)

### Share the video clip:

Taking Care of Our Landfill (1:48) <a href="https://www.youtube.com/watch?">https://www.youtube.com/watch?</a> time continue=6&v=gTErsIF Blw



**Co-constructing ideas:** 50% of waste can be kept out of the landfill! How can we reduce what's going in the landfill? What can go in the landfill? What shouldn't? Invite students to contribute to a two column anchor chart:

Stuff that can go in the landfill:	Stuff that shouldn't go in the landfill:

### Consider the difference between nature's waste and man-made waste:

### or·gan·ic

/ôr'ganik/ •0

adjective

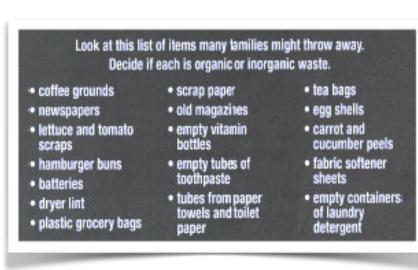
adjective: organic

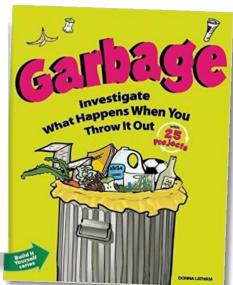
relating to or derived from living matter.
 "organic soils"
 synonyms: living, live, animate, biological, biotic
 "organic matter"

in·or·gan·ic /ˌinôrˈganik/ •

adjective

1. not consisting of or deriving from living matter.





### **Top divertible waste:**

- 1. Food Waste ~ What food waste can be composted?
- 2. Paper/Plastics/Packaging ~ What can be recycled? What is garbage?
- 3. Yard waste ~ What should we do with yard waste? Where does it go?



**Independent Reflection:** What are some ways to produce less garbage? What can I do differently?

### **Possible next steps:**

- Visit the following webpage to explore the idea of creating a *Zero Waste Starter Kit* <a href="https://zerowastecanada.ca/wp-content/uploads/2018/01/Zero-Waste-Starter-Kit.pdf">https://zerowastecanada.ca/wp-content/uploads/2018/01/Zero-Waste-Starter-Kit.pdf</a>
- How much food am I wasting? Explore the following lesson ~ <a href="http://cdn.worldslargestlesson.globalgoals.org/2017/07/Reducing-Food-Waste-For-the-Global-Goals-.pdf">http://cdn.worldslargestlesson.globalgoals.org/2017/07/Reducing-Food-Waste-For-the-Global-Goals-.pdf</a>
- Create a landfill in a bottle and make observations over a period of time ~ What simple changes you can make in order to keep items that don't break down out of landfill or ways to keep harmful items out of the landfill? <a href="https://www.speakcdn.com/assets/2332/oef\_landfillbottle.pdf">https://www.speakcdn.com/assets/2332/oef\_landfillbottle.pdf</a>

### Lesson 3 ~ Recycle. Why?

**Big idea:** Everything in the environment is one/connected (e.g., sun, sky, plants and animals) and we have a responsibility to care for it.

Curricular competency: Use Social Studies inquiry processes and skills to  $\sim$  ask questions; gather, interpret, and analyze ideas; and communicate findings.

**Driving questions:** Why recycle? What can I recycle? What happens to my recycling?

**Learning target:** I can identify how my actions and the actions of others affect my community and the natural environment and can work to make positive change.

**Materials needed:** post-it notes, computer, projector and speakers, whiteboard, and the recycle sorting cards.

**Partner turn and listen:** Invite students to consider and respond to the questions, "Why recycle? What does it mean to recycle?"

Whole group conversation: Why recycle? <a href="https://recyclebc.ca/education/why-recycle/">https://recyclebc.ca/education/why-recycle/</a>

### **Share the clip:**

Household Leaders: Stuart's At-Home Recycling Tips (1:18)

https://www.youtube.com/watch? time\_continue=1&v=tKQ9-sKRxYw



**Co-constructing ideas:** Invite students to contribute to a two column anchor chart: What stuff can be recycled? What can't?

Stuff that can be recycled:	Stuff that can not be recycled:

**Digging deeper:** Next, invite students to explore the following webpage which provides information about items that can and can not be recycled both curbside, at Recycle BC depots and CSWM depots in the Comox Strathcona Waste Management service area. Students can explore the drop-down menus to make their own discoveries about recyclables before playing with the sorting and recycling cards.

https://www.cswm.ca/recycling/what-can-i-recycle

Whole group activity: Sorting and recycling. Using the printed recycle bins and cards, invite students to pick a card, decide which recycle bin the item can go into and explain why.







**Performance of Understanding:** What can I recycle? Students work in teams to select and create an appropriate form of presentation suitable for purpose (building awareness and understanding about recycling) and audience (classmates / schoolmates). The presentation could be an animation, an iMovie, an oral presentation, a slideshow, or a dramatic performance.

### Possible next steps:

Where can we take our recyclables and returnables in the Comox Valley?

Comox Vally Return-it locations: <a href="https://www.return-it.ca/locations/comox-valley/">https://www.return-it.ca/locations/comox-valley/</a>

Become a Certified Return-it 101 School: <a href="http://www.returnitschool.ca">http://www.returnitschool.ca</a>

What happens to my recycling? Share the following clip:



What happens to My Recycling? (3:39)

Ever wonder what happens to your recycled materials once they leave the curb? Watch this video and find out!

https://www.youtube.com/watch? time\_continue=12&v=DUH-u2TCq4g

### Lesson 4 ~ Reuse, Rewear. How does a simple T-shirt get made?

**Big idea:** Complex global problems require international cooperation to make difficult choices for the future

**Curricular competency:** Use Social Studies inquiry processes and skills to ~ ask questions; gather, interpret, and analyze ideas; and communicate findings.

**Driving questions:** How does a simple T-shirt get made? Why should I care?

**Learning targets:** I can ask open-ended questions and gather information. I can identify how my actions and the actions of others affect my community and the natural environment and can work to make positive change.

**Materials needed:** computer, projector and speakers, Boxing Strategy Think Mats (there are 4 different mats - assign 3 students per mat... 2 sets of mats = 24 students)

**Establishing a need to know:** share the video clip Introducing: Planet Money Makes a T-shirt (0:47) This is the first of 6 short clips that explore:

How does a simple T-shirt get made? To find out, we decided to make one -- and track every step of production. Turns out, there's nothing ordinary about a simple shirt.



https://www.youtube.com/watch?v=r2Zod7Sd3rQ&list=PLp-wXwmbv3z8aAJrhyttiqPMiKy0WVJym

**Performance of Understanding:** Invite students to write in role pretending they are a t-shirt, describing their journey, tracking every step of t-shirt production from cotton fields to the hands of a person.



**Co-constructing Ideas**: Boxing Strategy Think Mats – students build from clues with chunks of the article *Reduce, Reuse, Rewear: School project teaches benefits of recycling clothing.* 

Model this *building from clues* strategy by projecting the headline of the article on the front screen, exploring it and inviting students to share a notice, think, wonder...

### Lesson 4 ~ Reuse, Rewear. How does a simple T-shirt get made?

Notice = explore the evidence - new vocabulary/interesting words, the photograph, the caption.

Think = make connections and/or inferences (evidence + my thinking = inference)...

Wonder = ask deep thinking questions...

The article has been split up into 4 separate mats. Students will be arranged in groups of three, with each group reading and responding to a quarter of the article; discussing, and jotting down what they notice, think, and wonder. Students jot down shared contributions.

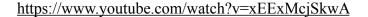
Follow with a whole group share. Guiding questions: What did you notice? What do you think? What do you wonder? Invite students to respond to and share about the section of text they read.

Next, share the entire article *Reduce, Reuse, Rewear: School project teaches benefits of recycling clothing.* with the whole group, from the projector. Read and discuss the article in its entirety...

Explore the webpage <a href="http://www.giveashirtcanada.com/">http://www.giveashirtcanada.com/</a> for more information.

### **How Your T-Shirt Can Make a Difference | National Geographic** (1:50)

Did you know that the t-shirt on your back has a major impact on the planet? Producing it took 2,700 litres of water, plus it takes a lot of energy to get it from the cotton fields to your closet. But some of your t-shirt's biggest impacts are in how you care for it. Here's how you can help reduce its effect on the environment.





### Thinking globally, acting locally ~

What can we do? There are many local non-profit organizations and thrift stores available to residents of the Comox Valley and Strathcona regional districts. By donating, we can play a role in diverting household waste from our landfills. The following link will take you to a list of organizations:

https://www.cswm.ca/recycling/household-goods



### Give a sh!rt about your clothing footprint (1:12)

Let's start a global conversation around the environmental impact of clothing.

https://www.youtube.com/watch? time\_continue=68&v=3J\_GxMKKs\_k

I notice:

# Reduce, Reuse, Rewear: School project teaches benefits of recycling clothing

I think:

#IGiveASh!rt campaign keeps 27,000 kilograms of clothing out of Ontario dumps

Philip Lee-Shanok · CBC News · Posted: May 20, 2017 5:00 AM ET http://www.cbc.ca/news/canada/toronto/campaign-to-divert-clothing-from-landfills-1.4124594



Lily Kane, a student at Mayfield Secondary School, hopes to show how clothing can have a big impact on our environment. (Recycling Council of Ontario)

Teens from high schools across the province are hoping to raise awareness about the importance of keeping old clothes out of landfills by joining the I Give A Sh!rt challenge.

The campaign encourages students to collect worn clothing and other textiles and donate them to charities such as Diabetes Canada.

The Recycling Council of Ontario says the latest campaign. which ran during Earth Week in April, kept 27-thousand kilograms of textiles from ending up in the province's landfills.

I wonder:

I think:

I notice:

reached 100 billion annually, which is double the amount compared to the year 2000." says Jo-'Textiles waste has reached unprecedented levels. Global production of new garments has

Challenge spotlights the importance and effectiveness of reuse and smart consumption, which are Anne St. Godard, Executive Director, Recycling Council of Ontario. "The #IGiveAShirt key actions that will reduce waste and production impacts."

Emma MacLennan-Nobrega, 16, said her fashion class at Mayfield Secondary School took part, hoping to show how recycling clothing can have a big impact on our environmental footprint. Mayfield, located in Caledon, is one of about 90 schools across the province to join the campaign.



than a dozen stores are brought Etobicoke. The warehouse is Village's Toronto Recycling where donations from more Redistribution Centre in Saad Saiyed runs Value

MacLennan-Nobrega said while fashion is important to kids her age, it's wasteful to think of clothing as a disposable product.

"We use it and we think it's not worth anything anymore and we throw it away without even thinking about it," she said.

Campaign partner Value Village helped sort through all the donations.

Saad Saiyed runs Toronto Recycling Redistribution Centre in Etobicoke, where donations from more than a dozen Value Village stores are brought for sorting every day. I wonder:

2

I think:

### I notice:



Some of the clothing students at Mayfield Secondary School were able to save from going to the dump during the #IGiveASh!rt campaign. (Recycling Council of Ontario)

"It takes something like 700 gallons of water to make a cotton shirt, so when you are aware of that you think about what 700 gallons would mean," he said.

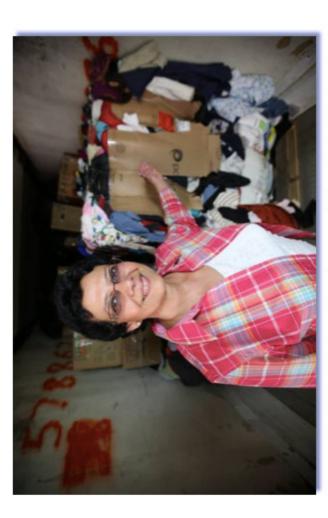
The Recycling Council of Ontario estimates that that's about enough water to last a person five years. A pair of denim jeans takes up even more water to produce — as much as 1,800 gallons (about 6,814 litres).

Saiyed says people need to get into the habit of recycling clothing just as they do their cans, bottles and newspapers.

"Metal recycling is one the easiest because it's pretty standard. Everybody knows about it and plastic recycling is pretty standard. But clothing is the harder because the awareness isn't there," Saiyed said.

At the facility, used textiles from charities such as Diabetes Canada, and other items donated at Value Village's community drop-offs are sorted. Saiyed says even soiled, stained and ripped clothes shouldn't go in the garbage.

### I wonder:



Khazeena Ashroff, Value Village's recycling sales manager, finds a market for all the donated clothes not resold in the chain's retail outlets. I call myself the gatekeeper to the landfill, says Ashroff. (Paul Borkwood)

It's up to Khazeena Ashroff, Value Village's Recycling Sales Manager, to find a market for the all the material not resold in the chain's retail outlets. "I call myself the gatekeeper to the landfill -- I look for second and third opportunities after thrift to use that material," said Ashroff.

She says if more people donated their clothing for reuse it could collectively make a big difference. According to Value Village's Corporate Impact Report, the company prevented 317 million kilograms of goods from reaching the waste stream last year.

But Ashroff says not enough people are getting the message that clothing is not disposable. "Only 15 per cent of what's purchased is reused. The rest ends up in landfill," he said. The company tries to find a market for everything that is donated, selling wholesale to resellers overseas. Ashroff says better that the clothing sorted here finds a second life overseas than buried in a dump.

I wonder:

⊣

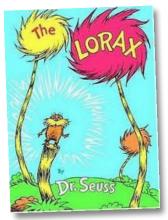
### Lesson 5. Refuse. What is sustainable practice? What isn't?

**Big idea:** Complex global problems require international cooperation to make difficult choices for the future.

Curricular competency: Use Social Studies inquiry processes and skills to  $\sim$  ask questions; gather, interpret, and analyze ideas; and communicate findings.

**Driving Questions:** Do you ever stop and think if what you do is sustainable? What is sustainable practice? What isn't?

**Learning targets:** I can ask open-ended questions and gather information. I can identify how my actions and the actions of others affect my community and the natural environment and can work to make positive change.



**Materials needed:** The Lorax, the student response mat (enough copies for 3 students per mat), computer, projector and speakers.

**Shared read:** share the story The Lorax by Dr. Seuss. **Digging deeper:** invite students, in teams of three, to infer meaning from the story. Inferring is looking back and reflecting about what has been read; when you stop and ask, "I wonder what the author meant?"

Evidence + My thinking = Inference.

**Evidence** ~ the words from the story **My thinking** ~ personal connections / background knowledge **Inference** ~ I think that...because... Maybe it means...because...

Share the following quote from The Lorax and model how to respond to it using the above framework. "UNLESS someone like you care a whole awful lot, nothing is going to get better, it's not."

Students are invited to examine the evidence (the quotes from the story) and graffiti their thinking (personal connections / background knowledge) around their favorite 3 quotes. Share ideas back to the whole group.

"I am the Lorax. I speak for the trees. I speak for the trees, for the trees have no tongues."

"Look Lorax." I said. "There's no cause for alarm. I chopped just one tree. I am doing no harm."

He snapped, "I'm the Lorax who speaks for the trees which you seem to be chopping as fast as you please."

"I meant no harm. I most truly did not. But I had to grow bigger. So bigger I got."

"You're glumping the pond where the Humming-Fish hummed! No more can they hum, for their gills are all gummed."

"Now all that was left 'neath the bad smelling sky was my big empty factory... the Lorax... and I."

"And all that the Lorax left here in this mess was a small pile of rocks, with the one word... UNLESS. Whatever that meant, well, I just couldn't guess".

"Plant a new Truffula. Treat it with care. Give it clean water. And feed it fresh air.

# I wonder what the author meant?



and reflecting about what has been read; pausing and asking, "I wonder what the author meant?" Choose your Consider the following quotes from The Lorax and infer meaning from the words. Inferring is looking back favorite three quotes and graffiti your thinking next to the quotes.

Evidence + My thinking = Inference.

**Evidence** ~ the words from the story

My thinking  $\sim$  personal connections / background knowledge

**Inference** ~ I think that...because...

Maybe it means...because...

"You're glumping the pond where the Humming-Fish hummed! No more can they hum, for their gills are all gummed."	"Now all that was left 'neath the bad smelling sky was my big empty factory the Lorax and I."	"And all that the Lorax left here in this mess was a small pile of rocks, with the one word UNLESS. Whatever that meant, well, I just couldn't guess".	"Plant a new Truffula. Treat it with care. Give it clean water. And feed it fresh air."
"I am the Lorax. I speak for the trees. I speak for the trees, for	"Look Lorax." I said. "There's no cause for alarm. I chopped	He snapped, "I'm the Lorax who speaks for the trees which you seem to be chopping as fast as you please."	"I meant no harm. I most truly did not. But I had to grow
the trees have no tongues."	just one tree. I am doing no harm."		bigger. So bigger I got."

In September 2015, 193 world leaders agreed to 17 Global Goals for Sustainable Development. If these Goals are completed, it would mean an end to extreme poverty, inequality and climate change by 2030.

THE GLOBAL GOALS
For Sustainable Development

Find out more here: <a href="http://www.globalgoals.org">http://www.globalgoals.org</a>

### Here are some glimpses of Goal #12:



https://www.globalgoals.org/12-responsible-consumption-and-production

### Lesson 5. Refuse. What is sustainable practice? What isn't?

**Performance of Understanding:** Invite students to design a postcard with a slogan or powerful statement in response to the questions, "What is sustainable practice? What can we do differently?"

Here are some examples of slogans / powerful statements:

Choose reusable products. Use an eco-bag for shopping, a reusable water bottle or a cup to reduce your plastic waste. Do some research and buy from companies you know have sustainable practices and don't harm the environment.



Buy second hand when you can.

Be conscious of packaging ~ the less the better!

Shop, eat and drink locally.
Supporting neighbourhood
businesses keeps people
employed and circulates money
back into your community.

### Lesson 5. Refuse. What is sustainable practice? What isn't?

**Set a purpose for viewing** ~ students are invited to notice, think and wonder. After viewing the short clip jot down your ideas in pictures and words on post-it notes:

- What did you **notice**? ~ Paying close attention to the evidence in the clip and communicating exactly what you saw.
- What do you **think**? ~ Inferring and connecting. Sharing connections, background knowledge, and ideas based on the evidence in the video clip (evidence + my thinking = inference).
- What do you **wonder**? ~ Asking questions. After closely examining the evidence in the video clip, what are you wondering? What questions do you have?



What is Sustainable Development? (3:40)

https://vimeo.com/144354623

The World's Largest Lesson (6:19)

https://vimeo.com/138852758





The World's Largest Lesson 2016 (5:16)

https://vimeo.com/178464378

Here's a link to a lesson:

http://cdn.worldslargestlesson.globalgoals.org/2016/06/Understanding-Sustainable-Living.pdf

### Lesson 6. Respond. Create a Waste Management PSA.

### **Create a Waste Management Public Service Announcement (PSA)**

Adapted from: <a href="http://www.mrscullen.com/images/dm">http://www.mrscullen.com/images/dm</a> imoviepsa.pdf

Working in teams of three: brainstorm ideas, come up with a concept, plan and shoot a 30 second Public Service Announcement (PSA) that focuses on waste management / sustainable practice.

Here are some examples of 30-second PSAs:

Recycling: <a href="https://www.youtube.com/watch?v=ibexZwsrfz4">https://www.youtube.com/watch?v=ibexZwsrfz4</a>
40 Gallon Challenge: <a href="https://www.youtube.com/watch?">https://www.youtube.com/watch?v=ibexZwsrfz4</a>

v=RCuGC95qTdE

Live United: <a href="https://www.youtube.com/watch?v=ytF9PU5IXDY">https://www.youtube.com/watch?v=ytF9PU5IXDY</a>

Use the following guidelines to begin to plan a 30-second spot!

**STEP 1** ~ Respond to the following questions

Message: What is our main message?	
What do we want the viewer to consider/understand?	
Action: What do we want the viewer to do?	

**STEP 2** ~ Create a storyboard for approval BEFORE you begin shooting A storyboard is a visual representation of the different shots (shot sketches) in the order they will appear in the finished work. *Your drawings can be simple stick figures*.

### Lesson 6. Respond. Create a Waste Management PSA.

In addition, include:

- 1. a written description of the shots you are planning: locations, actions, objects, actors, etc.
- 2. an audio description (where the narration comes in, or if there is music over the shot.)

STEP 3 ~ Decide who will do these jobs:  VIDEOGRAPHER EDITOR  COMPOSER
STEP 4 ~ Collect or create the images, video clips, etc, on your iPad
STEP 5 ~ Add captions and edit your video clip to a 30 second PSA
STEP 6 ~ Add your audio
STEP 7 ~ Team self-assessment:
What worked?
What was difficult?
What would you do differently next time?

As a team, respond to the criteria below by sharing specific evidence of your successes:

<b>Emerging</b>	On Track	Evidence	Extending
	Our PSA includes an informative, thought-provoking message about waste management.		
	Our PSA includes eye- catching images, video, titles, and sounds.		
	Our message prompts the viewer to think differently about waste, and to take action (to behave differently).		
	Our group worked well together ~ communicating with purpose (contributing ideas), thinking creatively, and sharing responsibility (learning from each other)		

# WASTE MANAGEMENT PSA STORYBOARD TEMPLATE

1 – Opening message	2	3
Description		
Audio		
4	5	9
Description		
Audio		
7	8	9 – Closing message
Description		
Audio		

### Comox Strathcona Waste Management Engineered Landfill Project (1:58)

https://www.youtube.com/watch? v=bfaLdZWzip8

Where does our garbage go? This video clips shares glimpses of the new landfill cell at the Comox Valley Waste Management Centre that opened in summer 2017.



### **Trash Me with Rob Greenfield** (1:13)

https://www.youtube.com/watch? v=KH20tkp\_EhY&t=3s

What would it look like to hold onto every piece of trash you create for an entire month? For 30 days, Rob Greenfield is wearing every single piece of trash that he creates while living just like the average American which creates 4.5 pounds of trash per day.

### Zero Waste Family Makes No Household Garbage for 3 Years! (6:15)

https://www.youtube.com/watch? time\_continue=375&v=epTPhU4Hg4U

After 3 years living a super low waste lifestyle, Katelin shares some of the changes she's made in her every day life to reduce consumption of single use and disposable products.





### **How This Town Produces No Trash** (5:05)

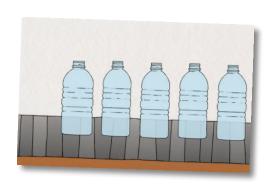
https://www.youtube.com/watch? time\_continue=1&v=eym10GGidQU

Residents must wash and sort virtually anything that is non-compostable in their household before bringing it to the recycling sorting centre. Shampoo bottles, caps, cans, razors, styrofoam meat trays, water bottles...the list goes on and on (literally) into 34 categories.

### What really happens to the plastic you throw away? (4:06)

https://www.youtube.com/watch?v= 6xlNyWPpB8

We've all been told that we should recycle plastic bottles and containers. But what actually happens to the plastic if we just throw it away? Emma Bryce traces the life cycles of three different plastic bottles, shedding light on the dangers these disposables present to our world.



# BURNING DOES THEM THINGS MAKE THEM NOT MAKE THEM DISAPPEAR

### **Burning Garbage Stinks** (2:30)

Burning garbage is not Zero Waste. Metro Vancouver says "it is for Zero Waste". If there is no incineration in authentic Zero Waste, then what type of Zero Waste are taxpayers and voters in Metro Vancouver paying for?

https://www.youtube.com/watch? time\_continue=1&v=5YKyRJBZ\_xE

### Repair Cafe (1:22)

### https://vimeo.com/207647219

Repair Cafes are held around the world, pairing people with broken stuff with people who like to fix stuff. Repairing with other people saves natural resources, prevents waste, and cultivates community.



# BOYAN SLAT The Ocean Clean-Up Initiative

### Dutch ocean crusader Boyan Slat awarded top global environmental prize for Inspiration and Action (2:54)

https://www.youtube.com/watch?v=4IqsD-HAYwk

Boyan Slat becomes the youngest winner of the United Nation's Champions of the Earth Award for inspiring efforts to cleanup the oceans.

### **You Can Live Without Producing Trash** (4:37)

### https://www.youtube.com/watch?v=nYDQcBQUDpw

One New York woman is making an effort to change the way we think about waste. Over the past two years, Lauren Singer has produced only enough trash to fill a 16 oz mason jar.





### **Introducing: Planet Money Makes a T-shirt** (0:47)

https://www.youtube.com/watch? v=r2Zod7Sd3rQ&list=PLpwXwmbv3z8aAJrhyttiqPMiKy0WVJym

How does a simple T-shirt get made? To find out, we decided to make one -- and track every step of production. Turns out, there's nothing ordinary about a simple shirt.

### How Your T-Shirt Can Make a Difference | National Geographic (1:50)

https://www.youtube.com/watch? v=xEExMcjSkwA

Did you know that the t-shirt on your back has a major impact on the planet? Producing it took 2,700 litres of water, plus it takes a lot of energy to get it from the cotton fields to your closet. But some of your t-shirt's biggest impacts are in how you care for it. Here's how you can help reduce its effect on the environment.



**Earth Day STEM Challenge: New Earth City** (8:20)



https://www.youtube.com/watch?v=agX7 4cTYcc

It is Earth Day, and the year 2035. Earth has become overcrowded. The students are part of a pioneering crew tasked with setting up the first city (New Earth City) on Planetopia, a fictional name for a recently discovered Earth-like planet in a distant solar system. Part of the mission is to set up the city to prevent or address the problems we are having on Earth so we don't repeat our errors on our new home planet.

### **Comox Strathcona Waste Management**

The CSWM service manages over 100,000 tonnes of waste and recycled material annually and oversees a number of diversion and education programs for the CVRD and the Strathcona Regional District (SRD).

https://www.cswm.ca/garbage/facilities-hours/comox-valley-waste-management-centre



### RECYCLING AT HOME WHAT CAN IRECYCLE? PROMOTION & EDUCATION

### **Recycle BC**

Recycle BC is a non-profit organization responsible for residential packaging and paper product recycling throughout British Columbia.

https://recyclebc.ca

### **Zero Waste Canada** Because there is no Planet B

You can make Zero Waste a reality in your own household, at your workplace, and in your community. The path to Zero Waste is a very beautiful and rewarding one and every one of your actions can get you one step closer to this goal.

https://zerowastecanada.ca/resources/



### WasteFreeLunches.org

If you're interested in learning more about waste-free lunches, you've come to the right place. Our aim is to provide you with all the information you need to participate in (or to start!) a waste-free lunch program at your school or place of employment.

http://wastefreelunches.org

### Waste Reduction Week in Canada

Schools have long been sustainability champions that instil life-long environmental awareness in students. Students who learn about waste and recycling at school develop positive environmental habits that are brought home and impact the entire family.

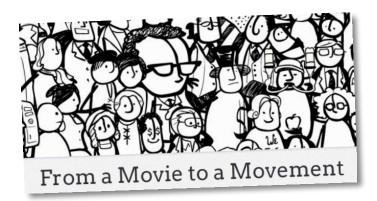
http://wrwcanada.com/en/get-involved/resources/tool-kits/schools



### **Great Canadian Shoreline Cleanup**

Every year, tens of thousands of Canadians take action against shoreline litter by participating in the Great Canadian Shoreline Cleanup, an event jointly led by the Vancouver Aquarium and WWF.

http://www.wwf.ca/events/shoreline\_cleanup/





### **Rethink Waste**

Learn waste collection rules in a fun way with this Rethink Waste Sorting Game. This game is a great resource for young children, families, teachers, and adults looking for a refresher on how to recycle and "what goes where".

https://surrey.recycle.game

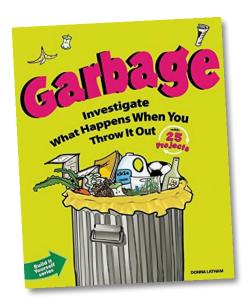


### The Story of Stuff

We have a problem with Stuff. We use too much, too much of it is toxic and we don't share it very well. But that's not the way things have to be.
Together, we can build a society based on better not more, sharing not selfishness, community not division.

https://storyofstuff.org

### Books to explore



Encouraged to think about the choices they make that generate garbage in the first place, readers learn ways to reduce, reuse, recycle and rethink their actions. Activities include whipping up a delicious edible landfill, brewing natural dyes for a T-shirt, and comparing the effects of commercial and homemade cleaners.

What a Waste! delves into the fascinating, weird, and often disgusting world of garbage, and shows why it's a growing problem. Creative solutions are showcased, like Repair Cafés to fix broken items, grocery stores that specialize in "imperfect" fruits and vegetables, and filtration systems in Kenya made from discarded water bottles.

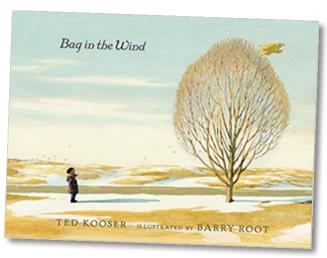


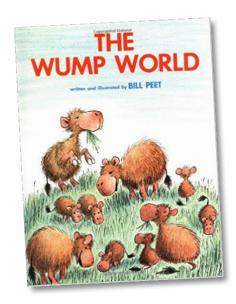


Get up close and personal with a wonderful world of waste. From composting and recycling, to landfills and dumps, to how creative people are finding new ways to reuse rubbish. It's fun to talk trash when it's jam-packed with infographics, thematic spreads, wow-worthy photos, sidebars, serious stats, and fabulous facts.

### Books to explore

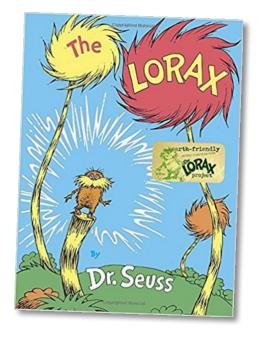
One cold morning in early spring, a bulldozer pushes a pile of garbage around a landfill and uncovers an empty plastic bag — a perfectly good bag, the color of the skin of a yellow onion, with two holes for handles — that someone has thrown away. Just then, a puff of wind lifts the rolling, flapping bag over a chain-link fence and into the lives of several townsfolk — not that all of them notice.





The Pollutians invade the
Wump World and turn the green
meadows into a concrete jungle.

Long before "going green" was mainstream, Dr. Seuss's Lorax spoke for the trees and warned of the dangers of disrespecting the environment. In this cautionary rhyming tale (printed on recycled paper) we learn of the Once-ler, who came across a valley of Truffula Trees and Brown Bar-baloots, and how his harvesting of the tufted trees changed the landscape forever.



### Vancouver votes to ban plastic straws, foam cups and containers by June 2019

Vancouver has voted to ban the distribution of plastic straws as well as foam take-out containers and cups as part of its zero-waste strategy.

http://www.cbc.ca/news/canada/british-columbia/vancouver-plastic-straw-ban-foam-cups-1.4666586





### Ocean Wise launches awareness campaign after microplastics found in Vancouver water samples

The problem of plastic pollution in the world's oceans has found its way to Vancouver's shores.

https://globalnews.ca/news/4084419/ocean-wise-launches-awareness-campaign-after-microplastics-found-in-vancouver-water-samples/

It's never been easier to keep waste from landfills, but are you doing your part? To meet waste reduction and climate change goals, municipalities need residents to do more recycling

http://www.cbc.ca/news/canada/british-columbia/keeping-waste-out-of-landfills-1.4463300





### City of Victoria bans single-use plastic bags

According to the city, Victoria goes through about 17 million plastic bags every year, clogging landfills and making their way to waterways and beaches where they can harm marine life.

https://globalnews.ca/news/3962781/city-of-victoria-bans-single-use-plastic-bags/

Still a waste to go: Organics ban has diverted tons of garbage from landfills but surprising amount of Metro Vancouver's organic waste still winds up in garbage

http://www.cbc.ca/news/canada/british-columbia/organics-ban-update-metro-vancouver-2017-1.3957186





Reduce, Reuse, Rewear: School project teaches benefits of recycling clothing #IGiveASh!rt campaign keeps 27,000 kilograms of clothing out of Ontario dumps

http://www.cbc.ca/news/canada/toronto/campaign-to-divert-clothing-from-landfills-1.4124594

### Canadians can stop being the world's worst waste generators

Two very different stories about garbage showed up in my news feed recently -- presenting starkly different pictures of the trash habits of Canadians.

http://www.huffingtonpost.ca/carlduivenvoorden/garbage-incanada b 9219680.html



### Many Canadians are recycling wrong, and it's costing us millions

Canadians are throwing too much garbage into their blue bins, sometimes out of laziness or ignorance, but sometimes with the best of intentions. And it's costing recycling programs millions of dollars a year.

http://www.cbc.ca/news/technology/recycling-contamination-1.4606893

### 'We need to rethink the entire plastics industry': Why banning plastic straws isn't enough

Banning straws is an easy win but 300 million tonnes of plastic are made each year and very little is straws.

http://www.cbc.ca/news/technology/banning-plastic-straws-1.4628160



# 

### Takeaway Menu

independent learning and Authentic stewardship, reflective cuisine



fresh, hot and delicious homework tasks straight Welcome to the homework menu, delivering to your doorstep!

How to order

anging from 'mild' to 'spicy' to 'hot'. You can only try each dish once and you must order a different Choose your homework task from the menu. The chilli rating indicates the difficulty of each task, sourse each time! Enjoy your food! Based on an idea from @teachertoolkit and adapted by Sara Wain

### Stirring Starters

A spicy selection of starters to develop your taste for sustainability.

# Tweet and Sour

Write a tweet (no more than 140 characters) explaining a local environmental issue.

## Word Ton Soup .....

Choose 3 of the 5 Rs and and explain an example of how you can apply each one.

### Mixed Environmental

Platter Watch an environmental programme and summarise the content

# Mini Spring Rules ......

Create a poster explaining rules for curb-side recycling in your community.

# Speech Cocktail .......

Find an environmental news article and summarise it in your own words

### Spicy Baked Science......

Choose a Science topic and show how it can be used to create a more sustainable home

### Yu Teach Tu .....

studied this year and design a task for the class to Choose an environmentally friendly skill we have

# Aromatic Audit ......

Interview a friend, neighbour or family member on what goes in their trash and recycling!

# Photo Phuey

Take a photograph of a composting organism and describe its life and habitat.

### Main Courses

Hit your homework hunger hard with this selection of

main courses

## Spicy Song Sauce

Write a song or a poem inspired by an environmental

Create a Facebook Profile Page for "The world's worst Foo Yung Facebook ...... litterbug"

# Assorted Quiz Questions ......

Create a ten question quiz for your classmates based on your lessons.

### Garden Deluxe......

Make a meal using only local foods. Take a photo of it and share it with the class.

### Cross Curricular Curry .....

Choose a topic from any subject (Math, Language Arts, Science, Social Studies, Art, Music) and show how you can link it to environmental stewardship.

# Crispy Crossword ......

Make a crossword using key terms from environmental

clothing swap with friends! Bonus if you serve healthy Clothes Slaw..... Instead of throwing out your old clothing, host a food while you gather!

### Creative Cracker .....

Produce a piece of artwork out of upcycled items.

### King Plan Platter ......

generation about today's trash issues! Create a lesson plan telling them what the future will be like and how to avoid ending up in the position we're in today! Imagine you are teaching your grandparents'

### Spare Ribs ......

Create a board game that teaches others about the 5

### Desserts

Still hungry? Reflect on your learning with a tasty dessert!

# Progress Pie

Write a journal entry about any waste-management changes you've made in your own home .

### Rapid Reflection Roulade ......

List five smart choices you've made this week.

### Landfill Lava Cake......

Create a labelled poster of your local landfill and describe in detail how it is engineered.

# Glace Graph......

different amounts of compost, garbage, and recycling Produce a graph or pie chart to demonstrate the your household produced in one week.

### Audit Ice Cream ......

What patterns are you noticing? What targets could Complete an audit of your own household's waste.

vou set yourself for improvement?

### Let's Play Design a whole-class game that reflects on any skills

Family Fondue...... that we have developed this year in waste management

Teach a lesson in the 5 Rs to a family member or friend and mark the work that they produce.

### Creative Crumble .....

examples of work to demonstrate how you are using Create a collage using images, words, photos, and environmental skills that you have developed this

### Woven Pie.....

make a lunch bag, pencil case, iPad case, or shopping Reuse a textile (an old t-shirt, an old sheet, etc.) to

### Chef's Specials

Get your teeth into these extra spicy dishes! They are very tasty, but beware: they might take a while to swallow!

### Mixed Media Special .....

Create a movie, a video blog, or a documentary explaining a local environmental issue.

### Spicy Scavenger's Supreme .....

waste is managed in the Comox Valley. Include a page recycling depots, water treatment facilities, etc) and of questions you can use to quiz your class on your create a presentation for the class outlining how Visit as many local facilities as possible (landfill,

Hero Platter Create an environmental superhero and produce a would they use them? Can you explain the Science adventures. What powers would they have? How behind them (how does their superpower work?) comic book / photo story / film of one of their

# Easy Bake Garbage Cake ......

understanding of a key topic than designing a themed term! One of the tastiest dishes on the Takeaway Menu! What better way to demonstrate your Bake a cake inspired by an environmen cake for your classmates to enjoy?

### Sharers

Don't want to eat alone? A meal with friends can be fun, too!

### Set Meal A

ensure that everybody in your group takes on an equal have covered this term. You could use a PowerPoint or lesson, complete with resources, based on a topic we In a group (max. four), plan and teach a 20 minute poster, create worksheets, or record a video. Just role!

term. This dish begins with a beautifully presented mini-play inspired by a topic we have covered this script, followed up by a gut-busting performance videoed for your classmates! Can you handle it? Set Meal B ...... In a group (max. four), write and perform a

### Set Meal C .....

have covered this term. This dish is the ultimate test of nerves! Can you demonstrate expert knowledge and bravest live to tell the tale and see their work on the assembly for your year group based on a topic we captivate an audience of your peers?! Only the In a group (max. four), plan and deliver an



Tal	keaw	Takeaway Punch Card	nch Ca	ırd	E	keaw	Takeaway Punch Card	ıch Ca	ırd	Ta	keaw	Takeaway Punch Card	nch Ca	ırd
3	~	~	~	3	~		~		~	~		~	~	~
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Tal	keaw	Takeaway Punch Card	nch Ca	ırd	Ta	keaw	Takeaway Punch Card	ıch Ca	ırd	Ta	keaw	Takeaway Punch Card	nch Ca	ırd
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7	~	~	~	3	~	~	7	~	3	7	~	~	~	3

### Plan a field trip to the Comox Strathcona Garden Education Centre

https://www.cswm.ca/gardeneducation



### NATURE IS OUR TEACHER!

Bring your class on a fun, educational field trip and join Elaine, the Compost Diva in the organic gardens at the CSWM\* Compost Education Centre right here in Campbell River! Here's a fun way to give your students an opportunity to learn where their food comes from and how it grows!

Experience a nature hunt through all the gardens, learn to identify plants by touch, smell and taste (depending on growing season).

The students will be hands on with red wigglers, while learning fun facts about composting and the gardens.

Each class takes approximately one hour and can be shortened to accommodate travel etc. to the centre. My class content is easily adapted to various grade levels. If you would like to book your class, please email ASAP as the spots fill quickly. These field trips are free of charge.

Field trips start in May and continue through till the end of September. The Compost Education Centre hours have changed this season. Our **new hours** are: **Mon. to Thurs. from 10 am - 3 pm** however happy to accommodate classes that may need to start at an earlier time.

As this is an outdoor education centre, students must dress for the weather and wear closed toe shoes. Please email me at: teamdiva@shaw.ca to book a field trip or if you have questions. Thanks very much and I look forward to meeting your class!

### Elaine

Educator/Program Coordinator - 228 S. Dogwood St. (Across from Strathcona Gardens Recreation Centre)

\*Comox Strathcona Waste Management Education Service

To book a school tour or for more info contact:

Elaine Jansen, Garden Educator Tel: 250-287-1625