# ENVIRONMENTALISM & SUSTAINABILITY IN THE CLASSROOM

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# INTRODUCTION

Our research package aims to support educators by integrating environmental education into their lesson plans through a cross-curricular approach - both thoughtfully and reflectively.

Our goal is to provide **examples** of **environmental education** that is locally relevant and culturally appropriate. This will enable educators to hone their skills by linking approaches and content from various disciplines to support the **understanding of complex environmental issues** and guide students towards **environmental literacy**.

## LINKS TO THE CASE

THE CRIES OF SEAGULLS AND SCENT OF OCEAN AIR GREET YOU AS YOU DRIVE OFF THE FERRY AT OCEANRIDGE, A RESOURCE-BASED COASTAL COMMUNITY WHERE YOU WILL TEACH A GRADE 3/4-CLASS THIS YEAR. OCEANRIDGE IS LOCATED NEAR AN OLD GROWTH FOREST THAT HAS BEEN THE FOCUS OF SEVERAL ENVIRONMENTAL PROTESTS. YOU WONDER WHAT RELATIONSHIP, IF ANY, YOUR STUDENTS AND THEIR PARENTS HAVE TO THE PROTESTS. SHOULD YOU INTEGRATE WHAT IS HAPPENING LOCALLY INTO YOUR TEACHING? HOW MIGHT YOU DO IT IN A WAY THAT ENGAGES THE CURRICULUM, THIS PLACE AND THE PEOPLE WITHIN IT?

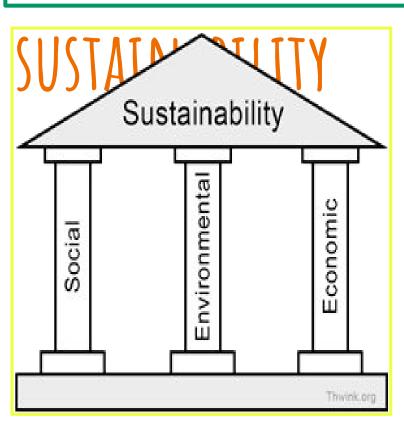


# WHAT IS SUSTAINABILITY?

Sustainability education is the exploration of the relationship between the three pillars of sustainability: the social, economic and environmental factors for the long-term well-being of all species. In other words, sustainability is the examination of the environment's ability to continue to provide and support life on earth.



# THE THREE PILLARS OF



#### **Environmental**

- Climate change Water
- Solid waste Land Use
- Natural environments Resource Management
- Indigenous peoples relationship to the land

#### **Social**

- Education & learning Active Citizenship
- Indigenous perspectives Stewardship
- Health & wellness Food & nutrition
- Poverty and homelessness
- Comfort safety and inclusion

#### **Economic**

- Tourism Infrastructure
- Agriculture Economic development
- Community economic development
- Labour market development

BC Ministry of Education (2007)

## ENVIRONMENTAL & SUSTAINABILITY EDUCATION



Gives students the opportunity to:

- Learn about the functioning of natural systems
- Identify their own beliefs and opinions
- 3. Consider a wide range of perspectives
- 4. Make informed and **responsible choices** for themselves, their families, and community

# FACETS OF SUSTAINABLE EDUCATION



## According the the BC Ministry of Education, education for sustainability must include:

Respect for the dignity and human rights of all people throughout the world and a commitment to social and economic justice for all

Respect for the human rights of future generations and a commitment to intergenerational responsibility

Respect and **care for the greater community of life** in all its diversity, which involves the protection and restoration of the Earth's ecosystems

Respect for **cultural diversity and a commitment** to build a culture of tolerance, nonviolence and peace, both locally and globally

BC Ministry of Education (2007)

### THE PRINCIPLES FOR ORGANIZING AND CONCEPTUALIZING ENVIRONMENTAL

#### EDUCATION

"C.A.R.E. EMPHASIZES THE INTERDISCIPLINARY NATURE OF ENVIRONMENTAL CONCEPTS, WHILE REPRESENTING A PROGRESSION

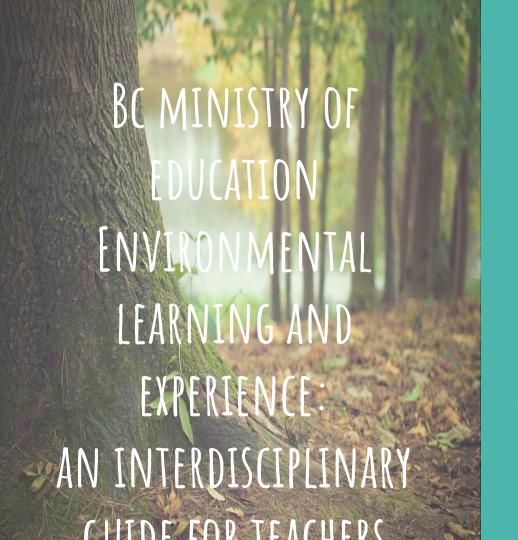
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**Aesthetics**: developing an aesthetic appreciation for the natural world that encourages students to learn about and protect the environment

**Responsibility:** providing opportunities for students to take responsible action and explore the environmental impact of their decisions and actions

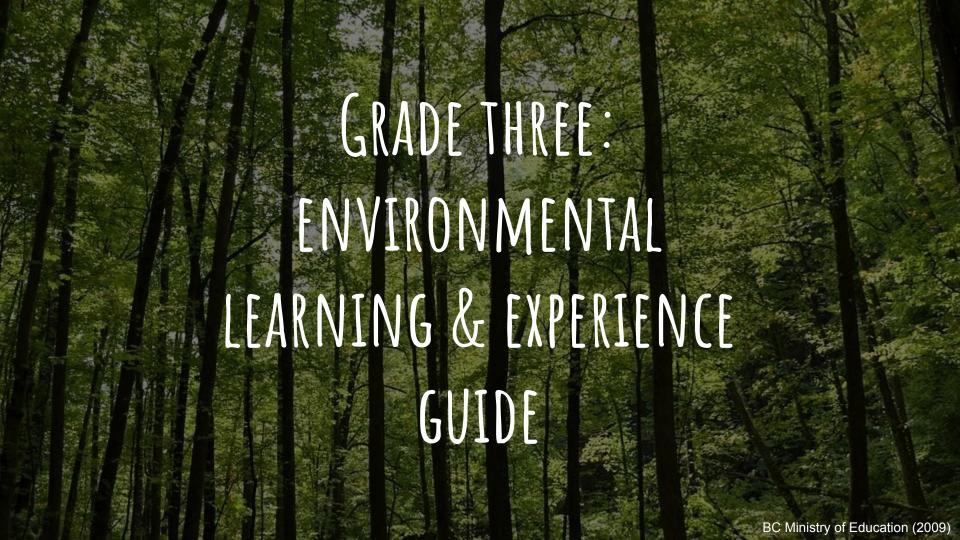
Ethics: providing opportunities to practice an environmental ethic based on an examination of values that can give rise to new visions, possibilities and actions

BC Ministry of Education (2009)



The following slides are from a document created by the BC Ministry of Education that offers a conceptual framework for implementing environmentalism and sustainability in the classroom using the C.A.R.E. system.

We show the grade 3 and 4 classroom guidelines that provide environmentally-focused lessons and activities in all subject areas. By incorporating environmental education cross curricular instead of isolating it as a separate subject, we, as educators, are indirectly modelling to students the connection it has to their daily lives and their relationships with their communities. Using the principles of C.A.R.E, teachers facilitate students' varied ideas about the environment and the world.



Grade Level	IRP	Selected PLOs related to Sustainability & the Environment	Complexity	Aesthetics	Responsibility	Ethics
3	SCIENCE	compare familiar plants according to similarities and differences     in appearance and life style	С	Α		
		describe ways in which plants are important to other living     things and the environment	С	A	R	E
		describe how plants are harvested and used throughout the seasons	c	А	R	E
		- identify changes that can occur in communities over time	С	A		
		- describe the importance of communities	C	A	R	E
	SOCIAL STUDIES	- locate major landforms and bodies of water in BC and Canada	C	A		
		demonstrate a sense of responsibility for the local environment			R	E
		describe how the physical environment influenced early settle- ment in their local community or another community studied	С	A		
	LANGUAGE ARTS	All Language Arts PLOs, being process oriented, implicitly address environmental education in each curriculum organizer (see below). The four principles for conceptualizing environment (C.A.R.E.) can be integrated into any Language Arts lesson. The inclusion of sustainability and environmental topics is a logical extension that will help students appreciate the interrelationship between humans and their larger environment.  Oral Language (Speaking and Listening)  Reading and Viewing  Writing and Representing	c	A	R	E

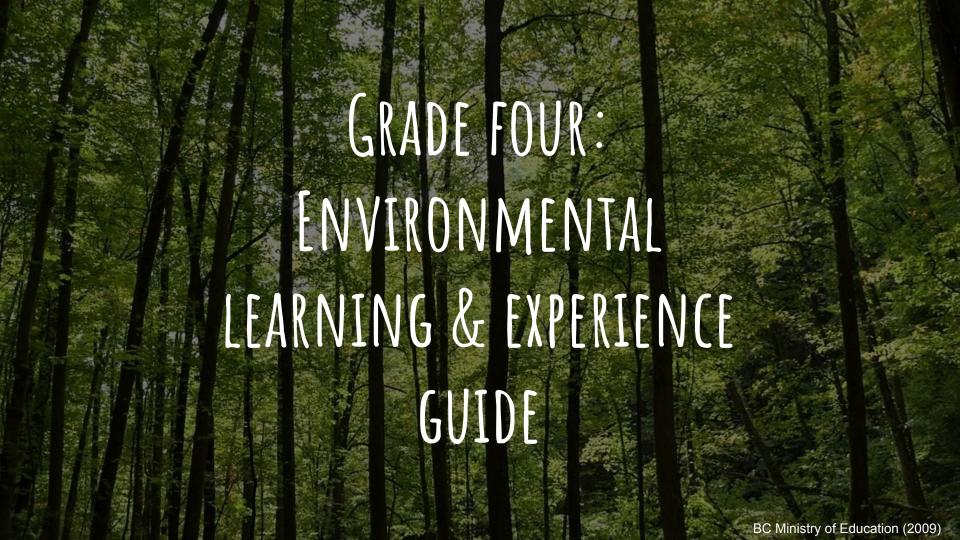
Music

classroom repertoire

3	MATH FINE ARTS	Mathematics PLOs, whether process or content oriented, can be readily set in the context of sustainability and environmental issues, notably through problem solving and other real world applications for each curriculum organizer (see below). Math PLOs can also be integrated into the cross-curricular units of study exploring sustainability and environmental topics.  Number  Patterns and Relations Shape and Space Statistics and Probability	c	Α	R	ш
		move expressively to a variety of sounds and music		Α		
	Dance	create movement sequences based on patterns, characters, and stories		А		
	Note for Dance	'Found sounds' such as environmental sounds are frequently used along with, or in place of, music at these grade levels; often the students will create a sound composition using objects found around them or weather sounds they have taped and then create the dance to go with it to demonstrate an idea about the environment, weather, etc.	c	А	R	E
	Drama	select feelings and ideas expressed in the group to use in dramatic work		А		
	Note for Drama	Students may choose to express ideas or concerns about an environmental issue in their dramatic work; these issues or concerns may also be the impetus for creating dramatic works.	С	А	R	Е

· describe personal thoughts, images, and feelings experienced in

	A. Contract					and the second second
3	Note for Music	Students may choose to express or respond to ideas or concerns about an environmental issue in their music listening or composing of music.	c	А	R	E
		identify a variety of image sources, including feelings, imagination, memory, and observation	С	Α	ć.	E
		use feelings, observation, memory, and imagination as sources for images		Α		
	Visual Arts  Visual Arts  Visual Arts  - dem the co - crea classr - draft imagi - iden	make 2-D and 3-D images: using a variety of design strategies;     exploring a variety of media; to communicate experiences, moods     and stories; to illustrate and decorate; and that engages more than     one of the senses		А		
		demonstrate an awareness that particular images have value in the community	c	Α		
		create images based on objects, places, events, or issues in their classroom, school, and community	c	A		
		draft ideas for images using feelings, observation, memory, and imagination	c			E
		identify safe and environmentally sensitive use of materials, tools, equipment, and processes		Α	R	
		apply a goal-setting model to a short-term goal	С	Α	R	E
	HEALTH & CAREER EDUCATION	describe practices that contribute to physical and emotional health	с			
		describe the importance of healthy eating and regular physical activity for a healthy lifestyle	c	Α		
	PHYSICAL EDUCATION	participate daily (e.g., five times a week) in moderate to vigorous physical activities			R	E
		identify choices people can make to be more active			R	E
		demonstrate leadership in physical activity			R	E



Grade Level	IRP	Selected PLOs related to Sustainability & the Environment	Complexity	Aesthetics	Responsibility	Ethics
4		compare the structures and behaviours of local animals and plants in different habitats and communities	с	А		
		analyse simple food chains	c	А		F
		demonstrate awareness of the Aboriginal concept of respect for the environment	С	А	R	
	SCIENCE	determine how personal choices and actions have environmental consequences	c	А	R	E
		measure weather in terms of temperature, precipitation, cloud cover, wind speed and direction	c	А		
		analyse impacts of weather conditions on living and non-living things	c	А	R	
	COCIAL CTURIES	<ul> <li>use maps and globes to locate: world's hemispheres, continents and oceans, and Aboriginal groups studied</li> </ul>	c	A		
	SOCIAL STUDIES	describe Aboriginal peoples' relationship with the land and natural resources	c	A	R	E
	LANGUAGE ARTS	All Language Arts PLOs, being process oriented, implicitly address environmental education in each curriculum organizer (see below). The four principles for conceptualizing environment (C.A.R.E.) can be integrated into any Language Arts lesson. The inclusion of sustainability and environmental topics is a logical extension that will help students appreciate the interrelationship between humans and their larger environment.  Oral Language (Speaking and Listening)  Reading and Viewing  Writing and Representing	c	A	R	E

4	MATH FINE ARTS	Mathematics PLOs, whether process or content oriented, can be readily set in the context of sustainability and environmental issues, notably through problem solving and other real world applications for each curriculum organizer (see below). Math PLOs can also be integrated into the cross-curricular units of study exploring sustainability and environmental topics.  Number  Patterns and Relations Shape and Space Statistics and Probability	c	A	R	E
	TINCANIS	create movement in response to the expressive elements of				1
	Dance	music and sound		A		
	Note for Dance	'Found sounds' such as environmental sounds are frequently used along with, or in place of, music at these grade levels; often the students will create a sound composition using objects found around them or weather sounds they have taped and then create the dance to go with it to demonstrate an idea about the environment, weather, etc.	c	А	R	E
	P	demonstrate an understanding that drama reflects a culture's beliefs and attitudes		A	R	
	Drama	express ideas and emotions using verbal and non-verbal communication	c	A		E

4	Note for Music	apply the elements of rhythm, melody, and expression to represent thoughts, images, and feelings in classroom repertoire		А		
		Students may choose to express ideas or concerns about an environmental issue in their dramatic work; these issues or concerns may also be the impetus for creating dramatic works.	с	A	R	E
		draft ideas for images using feelings, observation, memory, and imagination		А	-	
		<ul> <li>make 2-D and 3-D images: using a variety of design strategies; exploring a variety of media; to communicate experiences, moods and stories; to illustrate and decorate; and that engages more than one of the senses</li> </ul>		A		
	Visual Arts	compare images from given social, cultural, and historical contexts	с	A		
		create images in response to aspects of art from a variety of historical and cultural contexts	с	A		
		suggest reasons for following safe and environmentally sensitive procedures in the use of materials, tools, equipment, and processes		A	R	
		use and care for materials, tools, equipment, and work space in a safe and an environmentally sensitive manner			R	E
	HEALTH &	identify the steps in a decision-making model (e.g., identifying the decision, listing alternatives, selecting a course of action, assessing the results)	С	A	R	E
	CAREER EDUCATION	create an inventory of their own attributes, including skills, interests, and accomplishments	С	А		
		describe the choices an individual can make to attain and maintain physical and emotional health	С	А	R	Е
	PHYSICAL	participate daily (e.g., five times a week) in a variety of moderate to vigorous physical activities			R	Е
	EDUCATION	demonstrate leadership in selected physical activities			R	Е



# SOCIAL RESPONSIBILITY Competency Profiles

BC's new curriculum outlines several required core competencies; social responsibility is one of those core competencies.

Social responsibility involves the ability to consider the interdependence of people with each other and the natural environment. It also involves the ability to contribute positively to one's family and community. One should be able to resolve problems peacefully and to empathize with others and appreciate their perspectives. And lastly, an individual should create and maintain healthy relationships.

#### 1. Contributing to community and caring for the environment

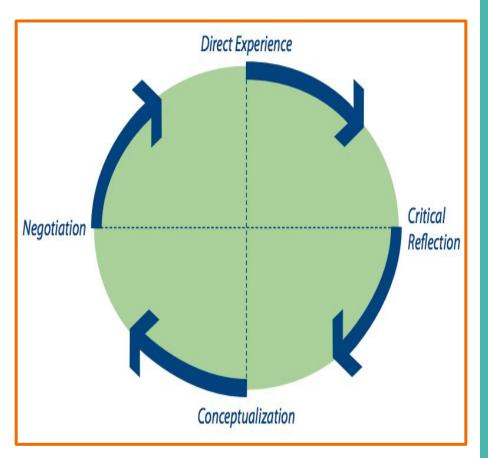
Students develop awareness and take responsibility for their social, physical, and natural environments by working independently and collaboratively for the benefit of others, communities, and the environment.

### SAMPLE "I" STATEMENTS

- With some support, I can be part of a group.
- I can participate in classroom and group activities to improve the classroom, school, community, or natural world.
- I contribute to group activities that make my classroom, school, community, or natural world a better place.
- 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.
- I can analyze complex social or environmental issues from multiple perspectives. I can take thoughtful actions to influence positive, sustainable change.

PROFILE	DESCRIPTION
<b>1</b>	I am aware that other people can be different than I am.
•	I can interact with my friends. With some support, I can be part of a group.
	In familiar and structured settings, I can interact with others and the environment respectfully.
<b>2</b>	I can participate in classroom and group activities to improve the classroom, school, community, or natural world. I can share my feelings and listen to others' views. I can solve some problems myself and can identify when to ask for help. With some direction, I can demonstrate respectful and inclusive behaviour, including online. I can identify when something is unfair to me or others. I can identify when others need help. I am kind to others, can work or play co-operatively, and can build relationships with people of my choosing.
	I can interact with others and the environment respectfully and thoughtfully.
3	I contribute to group activities that make my classroom, school, community, or natural world a better place. I can identify small things I can do that could make a difference. I can consider others' views and express a different opinion in a peaceful way. I can identify problems and compare potential problem-solving strategies. I can demonstrate respectful and inclusive behaviour, including online. I can explain why something is unfair. I can identify when others need support and provide it. I can build and sustain relationships. I show care for elders.
	I can take purposeful action to support others and the environment.
4	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. I can identify different perspectives on an issue. I can clarify problems, consider alternatives, and evaluate strategies. I respect differences, and demonstrate respectful and inclusive behaviour, including online. I can advocate for others. I am aware of how others may feel and take steps to help them feel included. I maintain relationships with people from different generations.
	I can initiate positive, sustainable change for others and the environment.
5	I can analyze complex social or environmental issues from multiple perspectives. I can take thoughtful actions to influence positive, sustainable change. I can clarify problems or issues, generate multiple strategies, weigh consequences, compromise to meet the needs of others, and evaluate actions. I take action to support diversity and defend human rights, and can identify how diversity is beneficial for my community, including online. I build and sustain positive relationships with diverse people, including people from different generations. I show empathy for others and adjust my behaviour to accommodate their needs.

## THE EXPERIENTIAL LEARNING CYCLE MODEL



Along with the C.A.R.E. model, educators should use the Experiential Learning Cycle to implement the components of the Environmental Learning and Experience Guide, as well as the Social Responsibility Core Competencies into their classroom.

"It is acknowledged that direct experience with a concept or problem, followed by opportunities for observation, reflection and negotiation leading to further inquiry, presents the richest form of learning."

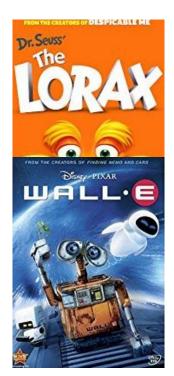
- Direct Experience
- Provides student with deeper understanding
- Critically examine their own cultural perspectives regarding the environment
- Critical Reflection and Negotiation
- Evaluate own experience against the experiences of others
- Seeking out different opinions
- Conceptualization
- Piece together common ideas or themes

In this model, educators should emphasize thinking, understanding and self-regulated learning for their students.

BC Ministry of Education (2007)



### **ENGAGE** STUDENTS IN INTERACTIVE ASSIGNMENTS AND READ-ALOUDS



Ask intriguing questions! Why did this happen? What can we find out about this? **How** can this problem be solved?



# **EXPLORE** ENVIRONMENTAL EDUCATION THAT IS LOCALLY RELEVANT AND IS CULTURALLY APPROPRIATE

**Exploring the local environment** enhances understanding that local issues often have provincial, national, and global **consequences**.

**Exploring the local environment** builds capacity for community-based decision making and **environmental stewardship**.

**Explore the local environment** to support students in their own passion for **lifelong learn learning**.

## EXPLAIN IN A KNOWLEDGE BUILDING CIRCLE!

The term Knowledge Building Circle refers to the seating configuration of students as they engage in Knowledge Building Discourse.



Circles eliminate hierarchy,

Circles foster respect for all life

Circles promote attentive listening and communication

The Knowledge Building Circle aligns with the wisdom of a time-honoured tradition of some Indigenous cultures, the Talking Circle, in which individuals take turns sharing ideas.

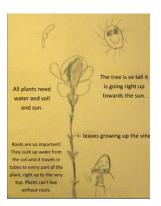
## **ELABORATE**: TAKE YOUR CLASS OUTSIDE!

Students need meaningful opportunities to explore the environment in its various forms and experience the natural environment in order to appreciate its wonders.

This does not have to be an excursion to a distant forest or river. A short walk around the school or to the local park, during which students are encouraged to explore their surroundings using all of their senses, can awaken curiosity and spark questions!







Progression of a student's learning and how they have attached meaning to their environment.

## EVALUATE

Differentiating the ways that students can show what they know

- Drawing Writing Sculpting Audiovisual presentations Graphic representation Knowledge Building Circles (oral communication) Creating (building Tochnology Poscarching a variety of sources)
- Creating/building Technology Researching a variety of sources, individually or in a group!

# INTEGRATING SUSTAINABILITY INTO CLASSROOM PRACTICES

This includes everything from turning off lights and computers when not needed, to making full use of paper and materials, recycling in the classroom, and encouraging waste-free lunches.

**Lesson Plans by the David Suzuki Foundation:** 

http://www.davidsuzuki.org/what-you-can-do/downloads/CWN\_TeachersGuide46.pdf



# BC CURRICULUM BIG IDEAS: SOCIAL STUDIES

#### GRADE 3: CONNECTIONS

- Canadian History and Geography
- How all civilization is being/ has formed
- Indigenous ways of knowing

Learning about indigenous People from diverse cultures Indigenous societies Indigenous knowledge is peoples nurtures multicultural and societies share some passed down through oral throughout the world value the well-being of the self, the awareness and respect for common experiences and history, traditions, and diversity. aspects of life. collective memory. land, spirits, and ancestors.

The pursuit of valuable natural resources has played a key role in changing the land, people, and communities of Canada.

Interactions between First Peoples and Europeans lead to conflict and cooperation, which continues to shape Canada's identity.

Demographic changes in North America created shifts in economic and political power.

British Columbia followed a unique path in becoming a part of Canada.

#### GRADE 4: CONNECTIONS

- Colonization of land and people: past, present, and future
- The Global Community
- Global Citizenship

LAND BASED INQUIRY EDUCATION

Learning about the geographic location that we live on.

Giving students an understanding of:

Past - What <u>has</u> happened to the land? What <u>was</u> happening?

Present - What is **currently** happening here?

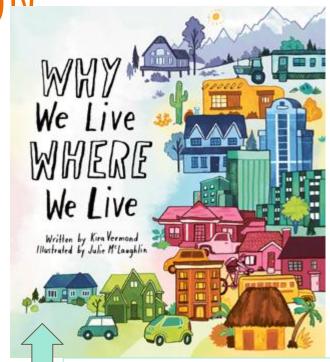
Possible Future -What **could** happen if we do/ do not intervene?

Questions for the Student:

Past- How have you ended up living where you live?

Present- What is currently affecting you and how you live?

Possible Future- How will you choose where you will live in the future?



A resource that talks about the Global Community and the different ways Humans affect and have affected the Earth and vise versa!

## WHERE DOES OUR FOOD COME FROM?



Present: We live in a time of Globalized Industry, we can get whatever food we want, whenever we want. Most foods we eat are not locally grown.

Past: If we did not have the option to import our foods, what would we eat? At what times/ seasons? Could we eat oranges?

Future: What could happen if places we get our imported food sources cannot supply us with food anymore? Would there be enough food here for us to live? Why or why not?

## WHAT WOULD YOU EAT?

#### CHALLENGES

HARRIS AND BARTER (2015)

- Classroom education tends to focus on what is available to people living in a Urban Globalized Context
- Ex. Canada's Food Guide is <u>not</u> reflective of what foods are locally available or sustainable
- Practices like hunting, fishing, and berry picking in Nature is foreign to people coming from other contexts
- Makes it difficult for students in Rural contexts to engage with the material, creates a dichotomy where Urban values are presented in the classroom



## BUILDING CULTURAL BRIDGES

### TWO-EYED SEEING" APPROACH

- incorporates both Indigenous and Non-Indigenous views equally in the classroom
- Both views working in tandem, not having special Indigenous interjections as treats or events
- Encourages students to make connections between new knowledge and previous understandings critically
- Recognizes Canada's Colonial History that has continued to be perpetuated into the present
- Seeks to be a decolonizing approach that reclaims the land through story and shared experience

Allows Students to "Walk in Two Worlds with One Spirit"

"Rather than being one definite sort of thing- for example, physical, spiritual, cultural, social- a given place takes on the qualities of its' occupants, reflecting these qualities in its own constitution and description and expressing them in its occurrence as an event: Places not only are, they happen"

Indigenous perspectives and ways of life play a **major** role in Western society's notions of environmentalism and sustainability. For Indigenous peoples, environmentalism and sustainability are not issues that need to be separately addressed and implemented into classrooms, for Indigenous peoples it is a *way of life*.

# MOVING FORWARD TOGETHER

- **Invite** Indigenous members of the community to share stories
- Diversifying students' vocabulary and awareness of what sustainability looks like in practice
- Engage in conversations about seasonality and conservation to develop a respect for nature
- Listening to Indigenous experiences and stories

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

"Traditional environmental knowledge is both cumulative and dynamic, building upon the experience of earlier generations and adapting to the new technological and socioeconomic changes of the present" (Harris et al, p. 17)





## THE SIDES OF THE PROTEST - OLD GROWTH FOREST

ENVIRONMENTAL PROTECTION

- → Indigenous values of land preservation
- → Reduction in global warming
- → Tourism industry
- → Animal habitat protection

#### THE INDUSTRY OF LOGGING

- → Money made off of timber
- → Employing workers/job creation
- → Global trade
- Interest in renewable practices (longevity of career)

YOU WONDER WHAT RELATIONSHIP, IF ANY, YOUR STUDENTS AND THEIR PARENTS HAVE TO THE PROTESTS...

- https://www.youtube.com/watch?v=z6YT izBF-jE&index=4&list=PLVTovaaFo2JydUd m3dy2roKxvh82FWFS1
- <a href="https://www.youtube.com/watch?v=k">https://www.youtube.com/watch?v=k</a>Huur4MzorM

The families of these students could be on **either side** of the protest, **regardless of cultural background** or **economic status**. This presents a **challenge** in classroom discourse for the educator in regards to the issue.

Where does the educator stand in the middle of a protest? And how do they overcome the challenge of a "divided" classroom?

## EXPLORING "FOUR PERSPECTIVES ON THE TEACHER'S ROLE"

Thomas E. Kelly identifies **four roles** that educators "may assume in handling controversial issues." (Kelly, 1986, p. 114)



Do you march your class out to the old-growth forest and hold hands around the tree?

Do you and your class make papier mache chainsaws to show that making money is good for the community?

...Or do you just ignore it altogether?

## EXPLORING "FOUR PERSPECTIVES ON THE TEACHER'S ROLE"

<u>Exclusive Neutrality</u> - The "value free" education. No controversial issues in the classroom whatsoever. It is hard to give fair perspectives from all points of view. The **school is not the place** to discuss **religion**, **race**, **politics**; they should be left up to those institutions.

<u>Exclusive Partiality</u> - One viewpoint is emphasized as the **"right way"**, while **other possible perspectives are dismissed**. Any **challenges to this view are disregarded**. A more **straightforward** point of view: abortion is murder, capitalists are pigs (to give examples)

<u>Neutral Impartiality</u> - The classroom is a place for controversial issue discussion however, the **educator's viewpoint is not salient**. Critical discussion and fair opportunities from all perspectives are encouraged.

<u>Committed Impartiality</u> - Educators **should express their viewpoint**, but **not "preach"** or convince the correctness of their viewpoint to students. Opportunities are given for **students to find their own "truth"** through engaging with fair shares of perspectives.

## CONSIDERING THE COMMITTED IMPARTIALITY ROLE

Do you agree? What's your position?

Thomas E. Kelly suggests that educators should assume the position of *committed impartiality* (1986, p. 130)

#### That is:

- ✓ Ensuring a respected classroom environment
- ✓ Fair hearings of all viewpoints
- ✓ Opinion of educator expressed, but not prescribed
- ✓ Opinion also represents a positive ideal
- Cultivation of critical thinking and dialogue

The role of committed impartiality represents a "fully functioning human being": someone who feels, acts and reacts. (1986, p. 134)

Links to the BC Curriculum Competency Profiles: Thinking and Social Responsibility

→ Appreciation of different perspectives, peaceful resolution, thinking critically.



## THE DE-MYSTIFICATION STRATEGY

An example of a strategy educators can use to tackle a controversial issue with students is the **De-Mystification Strategy** (Clarke, 2015).

This can be modified for any grade level, although use caution with content heavy issues at the younger level.

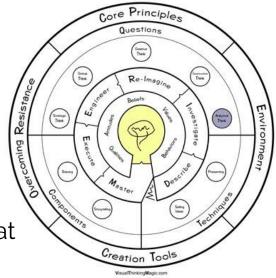
- 1. What is the issue about? What do you know about the old growth forest?
- 2. What are the arguments? What is the problem?
- 3. What is assumed? Who is saying what about the old growth forest?
- 4. How are the arguments manipulated? What do you see in the newspaper? On TV? What have you heard?

The result of this strategy allows students to see where **certain values come from**, the **presence/absence of information**, and to **evaluate** their own opinions. (Clarke, 2015)

#### CRITICAL THINKING AND OTHER CONSIDERATIONS

Coming into a rural community as an educator, it is important to **familiarize** yourself with the environment and to **be aware** of **local current events**. Acknowledging and respecting the diversity of the students is fundamental.

Instead of ignoring controversial issues that may be affecting the community (and your students' families for that matter), make it an **opportunity for critical thinking** and **discussion** in the classroom.



https://www.quora.com/What-are-analytical-critical-and-lateral-thinking-skills

What does an old growth forest look like? / What is the role of the forest in the environment? Who cuts down trees? / Why is the cutting of trees necessary?

"WHAT ARE OUR CHANCES OF BECOMING GLOBAL EDUCATORS [AND ENCOURAGING OUR STUDENTS TO BECOME GLOBAL CITIZENS] IF WE REMAIN AVERSE TO TAKING ON CONTROVERSIAL PUBLIC ISSUES AS PART OF OUR TEACHING PRACTICE?"

(CLARKE, 2005, RETRIEVED FROM HTTP://BCTF.CA/GLOBALED/TEACHINGRESOURCES/CLARKEPAT/TEACHINGCONTROVERSTALISSUES, HTML)

# CONCLUSION

In conclusion, we hope to model and teach environmental education through an **integrated approach** that promotes and incorporates **multiple** 

perspectives and ways of knowing by having students contextualize themselves in relation to land as a form of Global Citizenship.

Ultimately, our **goal as educators** is to **foster critical thinking** in regards to not only environmental issues, but any global issue.

## GLOSSARY

[NVINONMENTAL EDUCATION: is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment.

CLOBAL CITIZEN: someone who is a part of the changing world and contributes to values and practices of the community.

GLOBAL [DUCATION: teaching the meaning of the world and awareness of global issues.

INTERDISCIPLINARY: combining or involving two or more academic disciplines or fields of study.

LAND BASED EDUCATION: an approach that recontextualizes the idea of land in relation to the past, present, and future.

STEWARDSHIP: In an environmental context, stewardship refers to human actions that contribute to a sustainable future for humans, animals, and plant species alike. Acts of stewardship grow from a deep respect for, and desire to protect, the balance of nature within the Earth's biosphere.

SUSTAINABILITY: of, relating to, or being a **method of harvesting** or using a resource so that the resource is not depleted or permanently damaged

## WORKLOAD BIBLIOGRAPHY

LEXI - Definitions, Strategies, Connections to BC Curriculum (Slides 6-23)

- Strategies -engage, explore, explain, elaborate, and evaluate. (slides 24-30) Integrating environmental activities into the classroom, Introduction and Conclusion.

INSTIE - Indigenous Perspectives (Slides 31-35)

Taking a Land Based Inquiry Approach with a focus on Food sourcing

MYRNA - Differing perspectives/beliefs in the classroom in regards to controversial issues (Slides 36-43)

## ANNOTATED BIBLIOGRAPHY

BC Ministry of Education. (2009). The Environmental Learning and Experience Curriculum Maps: Environment and Sustainability Across BC's K-12 Curricula.

This is a document put forth by the BC Ministry of Education that offers a conceptual framework for implementing environmentalism and sustainability into the classroom. It is relevant to the case because it provides environmentally-focused lessons and activities in all subject areas for grades 3 and 4.

BC Ministry of Education. (2007). Environmental Learning and Experience: An Interdisciplinary Guide for Teachers.

This document provides the "what why and how" os environmentalism and sustainability in the classroom. It describes what it is, why it is important and how to implement it into the classroom. By using the C.A.R.E model and the Experiential Learning Model, students should have an exceptional understanding of the importance of contributing to the global community. This document is central to our guiding research question.

Chiarotto, L. (2011). Natural curiosity: A resource for teachers: Building children's understanding of the world through environmental inquiry. Toronto, Ont.: The Laboratory School at the Dr. Eric Jackman Institute of Child Study, Ontario Institute for Studies in Education, University of Toronto.

This text is a guide for educators and administration for teaching students the importance of adoption the perspective of a global citizen. It outlines why environmental education is important and relates to our case 3 question "How might you do it in a way that engages the curriculum, this place, and the people within it?" by giving examples like Experiential learning, place-based practices and integrating cross-curricular unit plans.

Chowdhury, T. R. (2015). The First Step Towards Sustainability: The Practices and Implementation of Environmental Education by Educators in Ontario (Unpublished master's thesis). University of Toronto.

This is a masters thesis from the Ontario Institute for Studies in Education of the University of Toronto. It outlines the importance of local environmental education and demonstrates how an educator could integrate situations and issues that are happening locally in to your classroom curriculum without bias. This links back to the Case 3 question "Should you integrate what is happening locally into your teaching." This text answers yes if the content is culturally appropriate and relevant to the local situation.

## ANNOTATED BIBLIOGRAPHY

Clarke, Pat. (2015). Teaching controversial issues: a four-step classroom strategy for clear thinking on controversial issues. Retrieved from <a href="http://bctf.ca/globaled/teachingresources/clarkepat/teachingcontroversialissues.html">http://bctf.ca/globaled/teachingresources/clarkepat/teachingcontroversialissues.html</a>

When looking at the protest aspect of the case study, it was important to explore the teacher's responsibility with a controversial issue. This article provided an approach to controversial issues for educators. The approach is a four-step "de-mystification" strategy, which helps students unpack and explore all the viewpoints and background information of a controversial issue. This strategy could be useful for all grade levels as educators see fit. It is also emphasized that educators should introduce controversial topics in the classroom – towards global education and global citizenship.

Furger, R. (2007, October 2). Taking It to the Class: Green Projects for the Classroom. Retrieved October 23, 2016, from https://www.edutopia.org/environmentally-conscious-lesson-ideas

This website has articles for lesson plans, classroom management strategies and project-based learning techniques for K-12. This article outlines some lesson ideas for environmentally conscious teachers. This article focuses directly on students from grade 3-4.

Harris, C. E., & Barter, B. G. (2015). Pedagogies That Explore Food Practices: Resetting the Table for Improved Eco-Justice. Australian Journal of Environmental Education, 31(1), 12–33. doi:10.1017/aee.2015.12

Situated in Victoria, this resource effectively outlines the growing ecological concern surrounding Canadian food options. It outlines the problem with globalized food sourcing, looking into fishing practices, and how local food reliance has impacted the community. It frames it argument around the need for equity in the education system in regards to viewing rural locations as less ideal than urban. In the school that was researched their methodology included: asking students to share their local food knowledge, having elders share origin stories for Aboriginal food practices, and food storage options (root cellars). Using food as the central theme for the study, environmental education is achieved holistically through multiple subjects while maximizing student engagement; exactly what the teacher in the Case wanted to implement.

Hatcher, A. (2012). Building cultural bridges with aboriginal learners and their 'classmates' for transformative environmental education. *Journal of Environmental Studies and Sciences*, 2(4), 346-356. doi:10.1007/s13412-012-0088-6

This resource provides a "Two-Eye Seeing" Approach that values equality between Indigenous and Non-Indigenous perspectives in the classroom. Though predominantly focussing on the view that science is stagnant in the classroom, this article shifts the focus onto the changing state of the environment and education as a contextualized process. The content is closely aligned with The First People's Principles of Learning, touching on Indigenous knowledge, worldview and others. Given the possible Indigenous presence at Oceanridge, the Teacher in Case 3 could adopt the "Two-Eye Seeing" approach to help engage the students by accessing their funds of knowledge about where they live.

#### ANNOTATED BIBLIOGRAPHY

Kelly, T. E. (1986). Discussing controversial issues: Four perspectives on the teacher's role. Theory & Research in Social Education, 14(2), 113-138.

In regards to the case, the educator is entering a classroom that may have a relation to an ongoing environmental protest. Where should the educator stand in the middle of a protest without jeopardizing the relationship with the students and their families? Thomas E. Kelly explores and critiques four different perspectives educator's may have for controversial topics – exclusive neutrality, exclusive partiality, neutral impartiality and committed impartiality. Kelly concludes that teachers should assume the position of committed impartiality, which welcomes and investigates all viewpoints of an issue. This position should be considered among all educators in our society today.

Vermond, K., & McLaughlin, J. (2014). Why we live where we live. Berkeley, CA; Toronto, ON;: Owlkids Books, Inc.

This is an informative Children's' book that speaks about the World in relation to Humans. Topics include: Food, Electricity, Water, Money, Cities, etc. Each topic is addressed as a culmination of moments in time, each section has a historic element, speaks about what is currently happening, and prompts the reader to think personally about their own choices. In relation to the Case, the teacher seems to be unfamiliar with rural communities and does not have much information about their students. Using an inquiry approach using the examples and content from this book, the teacher could be able to understand more about the history of Oceanridge through interaction with students and the land.