

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM Lesson Plan

Lesson Title: The Whale Child and Protecting the Environment Lesson # 1 Date: Nov. 26th, 2023
 Name: Georgina Wilson Subject: Science Grade(s): 3

Rationale:

This lesson is important because it focuses on the environmental issues faced by Indigenous communities and the importance of including their perspectives and knowledge in finding solutions.

Core Competencies:

Communication	Thinking	Personal & Social
Communicating: <ul style="list-style-type: none"> - I communicate with intentional impact, in well-constructed forms that are effective in terms of my audience and in relation to my purpose. Collaborating: <ul style="list-style-type: none"> - I take on different roles and tasks in the group and work respectfully and safely in our shared space. I express my ideas and help others feel comfortable to share theirs so that all voices are heard. I work with others to achieve a common goal and can evaluate our group processes and results. 		Social Awareness and Responsibility: <ul style="list-style-type: none"> - 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. I advocate and take thoughtful actions to influence positive, sustainable change in my communities and in the natural world. - I can analyze complex social or environmental issues from multiple perspectives and understand how I am situated in types of privilege. I act to support diversity and defend human rights and can identify how diversity is beneficial for the communities I belong to.

Big Ideas (Understand)

Living things are diverse, can be grouped, and interact in their ecosystems.

Learning Standards

(DO)	(KNOW)
Learning Standards - Curricular Competencies	Learning Standards - Content
<ul style="list-style-type: none"> • Processing and analyzing data and information: <ul style="list-style-type: none"> - Experience and interpret the local environment. - Identify First Peoples perspectives and knowledge as sources of information. • Applying and innovating 	<ul style="list-style-type: none"> • The knowledge of local First Peoples of ecosystems. - The interconnection between living and non-living things in the local environment; our shared responsibility to care for the local environment (i.e., stewardship); information shared from the local First Peoples community and Elders.

<ul style="list-style-type: none"> - Contribute to care for self, others, school, and neighbourhood through personal or collaborative approaches. - Co-operatively design projects. 	
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Instructional Objectives & Assessment

Instructional Objectives (students will be able to...)	Assessment
<ul style="list-style-type: none"> • SWBAT communicate their understanding of environmental issues, the significance of including Indigenous perspectives in addressing environmental issues and considering how their newfound knowledge can be applied in real-world situations. • SWBAT work together and explore and discuss how Indigenous knowledge and practices offer valuable solutions to environmental challenges, emphasizing the importance of incorporating traditional wisdom into conservation efforts. • SWBAT gain an understanding of the unique connection between Indigenous communities and the environment, appreciating the cultural significance of their practices and the challenges they face. 	<ul style="list-style-type: none"> • Conversation: the teacher will engage in conversations with each group as they are working on their poster and during their talking circles. The teacher will ask questions to assess their depth of understanding and what they learned about Indigenous perspectives and their ability to articulate connections between environmental issues and Indigenous perspectives. • Observation: The teacher will walk around and observe students as they are working on their posters, looking for evidence of collaboration, engagement, and the application of critical thinking skills as they explore environmental issues and apply Indigenous knowledge. As well as ensuring that students are following the correct protocols of a talking circle and are being respectful and understand the cultural significance of them. • Product: The poster has proper illustrations and short, well written paragraphs about what they find interesting or admirable about Coast Salish culture as well as their commitment to environmental stewardship.

Prerequisite Concepts and Skills:

<ul style="list-style-type: none"> - Students should have a basic understanding of environmental issues and their impact on Indigenous communities. - Students should have knowledge of Indigenous communities and their connection to the land. - Students should be familiar with the concept of collaboration and advocacy in problem-solving. - Students should have basic presentation skills and be able to effectively communicate their ideas. - Students should have an understanding of the importance of respecting and including diverse perspectives.

Indigenous Connections/ First Peoples Principles of Learning:

<p>Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.</p>
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- The book introduces students to existing environmental issues with a message of hope, education, sharing, and action. It also teaches about the timeless Indigenous value of environmental stewardship and how we must all work together on behalf of Mother Earth.

4-Point Framework Inclusion:

- Indigenize the space: Coast Salish artwork will be displayed and the student's posters after completion will be hung around the classroom and an object from the land will be used as a talking stick during talking circles.
- This lesson will be used in future years and the extensions will be used for a unit plan based on environmental stewardship.
- Inclusion of talking circles is representative of the Aboriginal Worldview and Perspective (holistic and interconnected). Holistic teaching through making connections with students as well as the land through personal stories of my relationship with the ocean and the importance of the ocean, the environment, and art to the Coast Salish people.
- Indigenous pedagogical structures:
 - Oral: students will have many opportunities for discussions with the class and one another and during the talking circles.
 - Incorporate story: The teacher is reading them a story that this lesson is based on.
 - Collaborative: students are working together in small groups.
 - Collective: the students are working towards the common goal of creating a poster and sharing ideas on how to work together through environmental stewardship.
 - Place-based, hands-on, authentic, experiential: the extension activities include field trips as part of a hands-on learning experience, inviting knowledge-keepers will deepen students' understanding, and creating a poster as a tangible product.

Universal Design for Learning (UDL):

- Students will have multiple means of representation including visuals, videos, and real-life examples to explain the environmental issues faced by Indigenous communities.
- There will be various ways for students to demonstrate their understanding, they can work in a group or individually if they prefer to work alone, students can also write a report or present their ideas orally.

Differentiate Instruction (DI):

- For students who need extra support they will be offered sentence starters or graphic organizers to help them structure their written explanations on the poster. Additional resources will also be provided such as simplified articles or videos.
- For students who prefer artistic expression can create a mural or artwork that represents an environmental issue and proposed solutions. Provide a variety of art supplies and materials for them to use. They can present their artwork to the class and explain the symbolism or meaning behind their choices.

Materials and Resources

- Book: *The Whale Child* written and illustrated by Indigenous authors Keith Egawa and Chenoa Egawa
- Pictures or illustrations related to Coast Salish culture, the ocean, and environmental issues.
- Drawing materials for students: pencil crayons, markers, poster paper).
- White board
- Talking stick (something from the land like a stick, rock, or feather)

Lesson Activities:

Teacher Activities	Student Activities	Time
<p>Introduction (anticipatory set – “HOOK”):</p> <ul style="list-style-type: none"> - The teacher will begin the lesson by showing the cover of <i>The Whale Child</i> and ask students what they notice about it and what they think this book might be about and why they think the whale is important in Coast Salish culture? (hook). - Following by displaying Coast Salish art and symbols on the white board while telling the students that Coast Salish culture is an Indigenous culture that has a deep connection to the environment and the book explores themes of Coast Salish culture and the importance of respecting and preserving the natural world as well as their rich tradition of storytelling and oral history. 	<ul style="list-style-type: none"> - The students will brainstorm ideas and participate in class discussion of what they think the story might be about and answer the questions the teacher asked. - The students are actively listening and looking at pictures of Coast Salish artwork and symbols. 	<p>5 min</p>
<p>Body:</p> <ul style="list-style-type: none"> - The teacher will read <i>The Whale Child</i> aloud to the students, pausing at key moments to discuss the themes and cultural elements. Emphasizing the importance of Coast Salish Culture and its connection to the environment. - After reading the book, the teacher will engage students in a discussion about the key points of Coast Salish culture and its relationship to the environment. Using guiding questions to scaffold their thinking, starting with easier questions, and gradually increasing the complexity. For example: <ul style="list-style-type: none"> - “What are some ways that Coast Salish culture is connected to the environment?” - “How does the book teach us about the importance of preserving cultural traditions?” - Students will be instructed to answer these questions with their desk buddies/shoulder partner and then they 	<ul style="list-style-type: none"> - The students are actively listening to the story. - Students will discuss the questions with their partner and share their ideas with the class. 	<p>30 min</p>

<p>can share their ideas with the whole class.</p> <ul style="list-style-type: none"> - The teacher will then provide students with materials to create a poster showcasing their understanding of Coast Salish culture and its connection to the environment. Encouraging them to include key elements from the book, such as the whale, traditional symbols, and the importance of cultural preservation. - The teacher will remind the students of Alex’s promise to become a teacher for future generations and the importance of taking action for the environment and have them include a few sentences on how they can contribute to environmental stewardship in their daily lives. - The teacher will check for understanding before instructing students to begin on their posters. 	<ul style="list-style-type: none"> - Students will work on their posters in small groups where they will include illustrations and write their promises to take care of the Earth, inspired by the story. 	
<p>Closure:</p> <ul style="list-style-type: none"> - The teacher will gather students into small talking circles (with at least one student from each group so that they are with different students than before) and assign who talks first going in a clockwise direction (telling students this is mimicking the rise and setting of the sun) and using an object (a stick or stone – something connected to the earth) so that each student can share their thoughts without interruption or taking up too much time. - The teacher will post guiding questions on the board. - The teacher will explain that each student is to share their posters and facilitate a discussion on the importance of including Indigenous perspectives and knowledge in addressing environmental issues, emphasizing the importance of working together to protect the planet. - The teacher will walk around and listen/engage in conversations of each talking circle. 	<ul style="list-style-type: none"> - The students will share their posters and reflect on the important lessons learned in their talking circles using “I” statements such as “I think that..” or can share a story or personal experience related to the questions. - The student holding the object has the right to speak while the rest of the students in the circle are listening and being respectful. 	<p>10 min</p>

<ul style="list-style-type: none"> - The teacher will explain why they are in talking circles, how for First Nations people everything is about relationships and making connections, especially connections to the land. - After the students have shared, the teacher will summarize the key lessons learned from <i>The Whale Child</i>. 	<ul style="list-style-type: none"> - The students are listening to the teacher. 	<p>Total: 45 min</p>
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Organizational Strategies:

<ul style="list-style-type: none"> - Students will work in groups made of their desk pods (4 students per pod) for their posters and then assigned different group members for their talking circles. - “Hands on top that means stop” to get students attention – requiring students to put down what they are working on and have their full attention on the teacher. - Students will grab their chairs and arrange themselves in talking circles assigned by the teacher during the closing of the activity.

Proactive, Positive Classroom Learning Environment Strategies:

<ul style="list-style-type: none"> - The teacher will set behavioral expectations for work time, such as working quietly, staying focused, and respecting others’ ideas. - The teacher will monitor student performance by circulating among the groups, asking probing questions, and providing guidance as needed. - The teacher will continually check for understanding throughout the lesson.

Extensions:

<p>This lesson plan can be adapted into a unit aimed at fostering cultural awareness and environmental stewardship. As part of a hands-on learning experience, students will interview a family member or member of the community to gain a better understanding of the cultural significance of environmental practices. Additionally, inviting a local Indigenous speaker to share insights on Coast Salish culture will deepen students’ understanding. To reinforce the importance of cultural perspectives in environmental education, the unit will culminate in a field trip to a local environmental organization or aquarium. This will allow students to gain a tangible understanding of ocean conservation efforts and reinforce the importance of cultural perspectives in marine/environmental conservation.</p>
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Reflections (if necessary, continue on separate sheet):

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Reflection

As I browsed the Strong Nations website, the book *The Whale Child* stood out to me and inspired me to create this lesson. I grew up in Sk̓wx̓wú7mesh (Squamish), which is a community of descendants of Coast Salish people. I have always felt a strong connection to the ocean, Orcas, and to Coast Salish artwork and I was immediately drawn to the story's ability to integrate traditional Coast Salish lore into a modern narrative, seamlessly integrating Indigenous ways of knowing into the present. I have also always been an advocate for the environment, and I believe that stories like this one are important to help younger generations understand the importance of protecting our natural world. Stories like these can also help to remind people of the importance of respecting and honouring Indigenous cultures.

The book was written and illustrated by Indigenous authors Keith Egawa and Chenoa Egawa. It is about Shiny, the whale child who learns from his mother that human carelessness is causing harm to the world's oceans. To warn people of these dangers, Shiny agrees to be turned into a boy by the ocean's water spirit. He meets Alex, a young Coast Salish girl who learns from Shiny that the living spirit of water exists in everything: glaciers, rivers, oceans, rain, plants, and all living creatures (*Strong Nations*, n.d.). Together they travel the earth, confronting the realities of a planet threatened by an uncertain future (*Strong Nations*, n.d.). Inspired by Shiny's hope, humor, and wisdom, Alex makes the promise to become a teacher for future generations. It is now evident to her that the traditional Indigenous value of environmental stewardship is needed now more than ever and that we must all stand up on behalf of Mother Earth (*Strong Nations*, n.d.). I can relate to Alex vowing to become a teacher to teach younger generations about the importance of environmental stewardship through Indigenous values, and it is through this lesson that I plan to do just that.

One of the challenges I encountered during the creation of this lesson was its timing. In retrospect, I would have liked to spend more time on the closing activity, where students are in their talking circles, but I did not want to take time away from the introduction or body of the lesson. I will be able to stretch it over a few lessons or perhaps a unit when it comes time to teach this lesson, thus making future lessons like this one much more effective. When I was

developing this lesson, one aspect that went well was that I am extremely passionate about the environment, particularly the ocean, and Coast Salish culture, which would make it easier for me to teach it since I hope my enthusiasm and passion would be inspiring and contagious. As I worked on this lesson, I have learned many ways to indigenize my practice and classroom in the future. As an example from this lesson, the students' posters would be hung after, and the objects sourced from the land would be kept for future talking circles. I will continue to implement talking circles into future lessons because they are an integral part of First Nations culture as they promote relationships and making connections and by using an object from the land it will continue to strengthen students' connection to it. In addition to promoting collaboration, advocacy, and respect for different perspectives, this lesson also teaches skills that are necessary to achieve sustainable solutions. Moreover, by connecting the lesson to a fictional story and providing extension activities, students are encouraged to explore and learn about environmental issues faced by Indigenous communities beyond the classroom. Further, I would be able to gain a more holistic view of students' abilities, understandings, and collaboration skills through the triangulated assessment method.

Overall, this lesson emphasizes the importance of collaboration, advocacy, and understanding different perspectives to successfully address environmental issues. The students will learn that through Indigenous perspectives and by working together, we can come up with innovative solutions that benefit everyone. Moreover, engaging in meaningful dialogue and listening to others can foster understanding and build trust. This lesson encourages students to be mindful of their actions and to think critically about their decisions. It also emphasizes the importance of respecting the environment and its resources, as well as Indigenous knowledge and traditions, and to consider the impacts that our decisions may have on future generations.

Source

The Whale Child, 2020)—*Indigenous & First Nations Kids Books—Strong Nations*. (n.d.). Retrieved December 1, 2023, from https://www.strongnations.com/store/item_display.php?i=8867&f=