

Harmonious Communities: Lessons in Science and Community from The Sockeye Mother
 Sidrah Anees, B.A., B.E.d, 2020

Resource used and possible concerns	Picture book: The Sockeye Mother by Brett D. Huson and Natasha Donovan
Author/creator and/or literature background	<ul style="list-style-type: none"> - The author, Hetxw'ms Gyetxw (Brett David Huson), is from the Gitxsan Nation, an Indigenous people from an unceded territory in the Northwest Interior of British Columbia, Canada. (Huson, Donovan, 2017, p.35) - The illustrator, Natasha Donovan, is a member of the Métis Nation of British Columbia. (Huson, Donovan, 2017, p.35)
UPE course connections (not exhaustive)	<ul style="list-style-type: none"> - EDUC 435: This resource can be used to show how words from different languages can be incorporated into English texts to better represent that culture, as well as enhance comprehension of the text for readers who speak that language. This text lends itself to a good discussion on the importance of preserving Indigenous language and the role of teachers in this work. - EDUC 520: This resource is a good example of interdisciplinary learning and how different subjects are interconnected and can be taught together. Using this resource also demonstrates how the separation of different subjects into specialized knowledge is a colonial structure, and how Indigenous knowledge/ways of knowing lend themselves to more holistic teaching and learning. - EDUC 535.11: Because this resource fits well into different social studies curriculums/grade levels, it is a very helpful resource for social studies teachers to be aware of. This book could be used at a variety of elementary/junior high grades, and for a variety of different subjects. For example, during the semester, students will be taking specialization along with Indigenous and there are some links between both in terms of teaching Indigenous epistemology. - EDUC 535.09: This book is a good resource for elementary science specialists to be aware of as it can make science more accessible for elementary students. The scientific facts presented in this book are packaged in a more cultural lens, which might be a good entry point for students who might otherwise struggle to connect to this material. This book also brings Indigenous knowledge, histories, and cultures into the science classroom, which can be difficult for some teachers to connect to in STEM subjects.
K-12 connection	<ul style="list-style-type: none"> - Targeted to grade 5 - Related curricular outcomes (science, social studies, and language arts): wetland ecosystems, physical geography of

Canada, histories and stories of ways in life in Canada, shaping an identity, responding to texts, discussion, cultural understanding.

- POS Connections:
 - **Science:** Recognize and describe one or more examples of wetland ecosystems found in the local area; e.g., pond, slough, marsh, bog, fen.
 - Understand that a wetland ecosystem involves interactions between living and nonliving things, both in and around the water.
 - Identify some plants and animals found at a wetland site, both in and around the water; and describe the life cycles of these plants and animals. Add in some copy/pasted outcomes for grade 5 directly from the POS here. That way teachers can cross them off specifically by teaching this lesson
 - Understand and appreciate that all animals and plants, not just the large ones, have an important role in a wetland community.
 - Identify the roles of different organisms in the food web of a pond:
 - producers-green plants that make their own food, using sunlight
 - consumers-animals that eat living plants and/or animals
 - decomposers-organisms, such as molds, fungi, insects and worms, that reuse and recycle materials that were formerly living.
 - Draw diagrams of food chains and food webs, and interpret such diagrams.
 - Identify human actions that can threaten the abundance or survival of living things in wetland ecosystems; e.g., adding pollutants, changing the flow of water, trapping or hunting pond wildlife.
 - Identify individual and group actions that can be taken to preserve and enhance wetland habitats.
 - Recognize that changes in part of an environment have effects on the whole environment.
 - **Social Studies:** 5.1.1 - value Canada's physical geography and natural environment:
 - appreciate the diversity of geographic phenomena in Canada
 - appreciate the environmental significance of national parks and protected areas in Canada
 - appreciate how the land sustains communities and the diverse ways that people have of living with the land

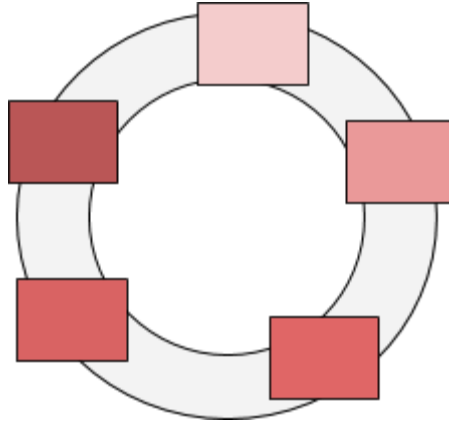
- appreciate the influence of the natural environment on the growth and development of Canada
- demonstrate care and concern for the environment through their choices and actions
- appreciate the geographic vastness of Canada
- 5.1.3 - analyze how people in Canada interact with the environment by exploring and reflecting upon the following questions and issues:
 - In what ways do natural resources and the physical geography of a region determine the establishment of communities?
 - How are natural resources used, exchanged and conserved in Canada?
 - Whose responsibility should it be to ensure the preservation of Canada's national parks and protected areas?
- 5.2.1 - appreciate the complexity of identity in the Canadian context:
 - recognize how an understanding of Canadian history and the stories of its peoples contributes to their sense of identity
 - acknowledge oral traditions, narratives and stories as valid sources of knowledge about the land and diverse Aboriginal cultures and history
 - acknowledge the contributions made by diverse cultural groups to the evolution of Canada
 - recognize how changes in society can affect identity
- 5.2.2 - examine, critically, the ways of life of Aboriginal peoples in Canada by exploring and reflecting upon the following questions and issues:
 - What do the stories of First Nations, Métis and Inuit peoples tell us about their beliefs regarding the relationship between people and the land?
 - How are the Aboriginal cultures and ways of life unique in each of the western, northern, central and eastern regions of Canada?
 - How were the natural environment and geography of each region of Canada determining factors of the diversity among Aboriginal groups (e.g., languages, symbolism)?

	<ul style="list-style-type: none"> - ELA: 2.2 Respond to Texts: - Experience various texts <ul style="list-style-type: none"> - experience oral, print and other media texts from a variety of cultural traditions and genres, such as historical fiction, myths, biographies, poetry, news reports and guest speakers - express points of view about oral, print and other media texts - make connections between fictional texts and historical events - describe and discuss new places, times, characters and events encountered in oral, print and other media texts - write or represent the meaning of texts in different forms - Construct meaning from texts <ul style="list-style-type: none"> - compare characters and situations portrayed in oral, print and other media texts to those encountered in the classroom and community - describe and discuss the influence of setting on the characters and events - support own interpretations of oral, print and other media texts, using evidence from personal experiences and the texts - Appreciate the artistry of texts <ul style="list-style-type: none"> - explain how simile and hyperbole are used to create mood and mental images - alter sentences and word choices to enhance meaning and to create mood and special effects - 2.4 Create Original Text - Generate ideas: use texts from listening, reading and viewing experiences as models for producing own oral, print and other media texts - Elaborate on the expression of ideas: experiment with modeled forms of oral, print and other media texts to suit particular audiences and purposes - Structure texts: use structures encountered in texts to organize and present ideas in own oral, print and other media texts <ul style="list-style-type: none"> - use own experience as a starting point and source of information for fictional oral, print and other media texts
Materials	<ul style="list-style-type: none"> - Paper, pencils, marker, construction paper, computers/tech for research, Smart Board

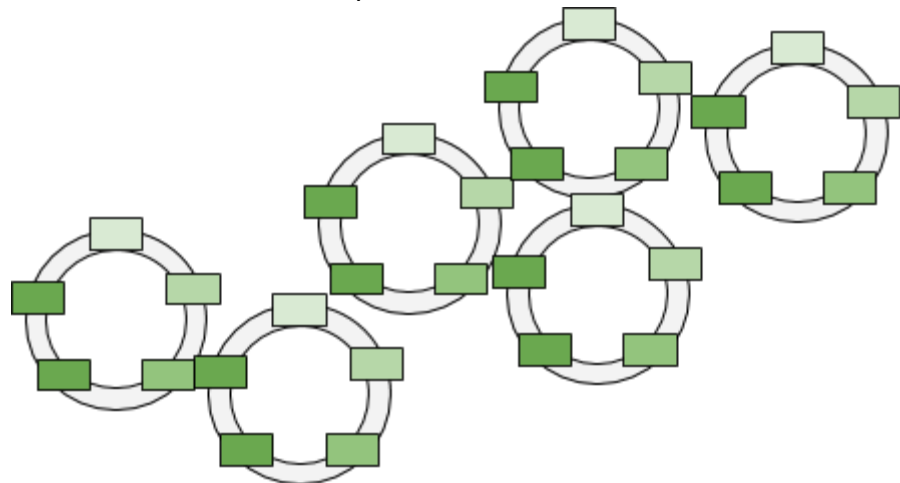
<p>Rationale</p>	<p>Big idea: Instill a sense of positionality within the students, making aware that they are part of the ecosystem themselves and how their actions affect different ecosystems. Through this book, we will explore the significance of wildlife in human existence and our cultural relationships with the land, and specifically with Indigenous relationships with this land. We will explore the interconnected nature of humans and our environments, and draw comparison and make connections to students' own experiences and understandings.</p> <p>Purpose: This resource works to incorporate the subjects into study that can span multiple weeks and foster a deep appreciation of Indigenous Gitxsan culture and our shared environment. Students of all levels will be able to engage with this interdisciplinary learning in a way that is meaningful for them and brings their lived experiences into the classroom. Through multiple modes of engagement, students will be prompted to closely examine Indigenous Gitxsan culture within the context of this book, and make connections to their own lives that will hopefully foster a lifelong appreciation of Indigenous peoples in Canada.</p>
<p>Teacher Knowledge</p> <p>Background information to review prior to the lesson</p>	<p>Teacher Knowledge</p> <p>Background information to review prior to the lesson</p> <p>The Sockeye Mother</p> <ul style="list-style-type: none"> • Describes the life cycle of the salmon and the many relationships it has with the land, animals and the culture and livelihood of the Gitxsan people of Northwestern British Columbia. • The book provides definitions of various complex words and a video can be found on YouTube that provides the pronunciations of the Gitxsan words that appear in the book (See Materials). • A map of the Gitxsan territory is included in the back of the book. • The author, Hetxw'ms Gyetxw (Brett David Huson), is from the Gitxsan Nation, an Indigenous people from an unceded territory in the Northwest Interior of British Columbia, Canada. • The illustrator, Natasha Donovan, is a member of the Métis Nation of British Columbia. <p>The Gitxsan Nation – background from the authors website (Huson, n.d)</p> <ul style="list-style-type: none"> • The lineage of the Nation is matrilineal; meaning that stories, names, rights and privileges come from the mothers.

	<ul style="list-style-type: none"> • Four clans within the Nation: Lax Seel (Frog), Lax Gibuu (Wolf), Lax Skiik (Eagle), Gisghaast (Fireweed) • The clans are divided by the Wilp system – groups of one or more families; lead by a head chief and wing chiefs who are guided by Elders and members of the Wilp. • More detailed information can be found at the official Gitxsan Nation website http://gitxsan.com
<p>Lesson/activities</p>	<ol style="list-style-type: none"> 1. Before reading the story, briefly discuss the structure of the story (big words explained on following pages, words in other languages translated, accompanying map). Explore the Pacific Northwest Interior area on Google maps so students are familiar with where the land is, relative to Alberta. Have a quick discussion about the place of wildlife in students' own lives: what animals are a part of your life? Have you ever hunted your own food before? 2. Before or after reading the book, have a discussion about translated words: do words always translate fully? Meaning vs. definition. Maybe draw links to students' cultures, language and idioms. What words in your own language do you have trouble translating to English? Explore the culture elements present in the book: for example, the prayers and ceremony mentioned on page 18. Do you know of any other cultures where animals are the focus of celebrations like this? What can cultural celebrations tell us about the values of that group of people? 3. Art and history perspective discussion: On the Smart Board or using a document camera, examine the images from the book with the class. Note the influence of traditional Coast Salish art in the book. Discuss: how do our worldviews impact our art? What worldview might the art in this book represent? Note that the illustrations are from the perspective of the animals and not from a human perspective looking down. Compare and contrast this art with colonial art or art from other cultures and regions of the world. What worldviews are we seeing? 4. If you are able to take a Wetland field trip earlier in the year, have the students recall the experience and the environment. Relate the environment to the story. <ol style="list-style-type: none"> a. "This story takes place in an environment similar to the one you experienced. Tadpoles and similar aquatic life live their lives in places like this." <ol style="list-style-type: none"> i. The idea behind this is to give students greater context on the situation. b. Maybe give greater context with more mountainous regions as well (such as pictures in the forest or hike pictures).

- i. This helps contrast the aquatic part by showing that these ecosystems can exist outside of marshes such as lakes and rivers.
5. Interconnected ecosystem rings: Divide students into groups of 4-5. Each group will research the life cycle of a wetland animal and create a “ring” out of construction paper. The ring will include illustrations of the different stages of the life cycle, with written explanations on the back, explaining what that stage is and where it occurs.



When students have finished their rings, come together as a class and share the lifecycle they have learned about. Once all groups have shared their life cycle rings, as a class, discuss how the rings fit together: connect the rings at the places where different life cycles intersect (ex: the human cycle would intersect with the salmon cycle when adult humans fish for adult salmon, and students would connect the relevant biological/social/cultural elements of this relationship). This will help students visualize/understand how different animal and human life cycles connect in different ways. This could be an interesting discussion piece for student conferences as well. Example:



6. Story writing: Have students write their own short stories

	<p>about an animal /animal or human/animal interaction. This could be about an animal previously learned about as part of the wetlands unit, or an animal/animals that are an important part of that student's culture perhaps have students ask their parents for ideas. Allow students time to research their animal/animals. The stories should be 1-3 pages, and cover 1-2 life stages for the chosen animal and outline at least 1 connection to another animal/human. You could also choose to have students focus on writing about the cultural/social value of animals in our culture/their home cultures. Collect these stories and compile them into a book for the class library. The following map project can also be included in this book, with students creating maps to go with their stories.</p> <p>7. Map making: Have students examine the map located at the back of the book (page 29). Discuss this map as a class: what elements do we notice? What style has been used? What does this map tell us about the land? Does this map tell us anything about this Indigenous group?</p> <ol style="list-style-type: none"> a. If the aim is to create a more artistic map (similar to the one in the book), students can create a map of their classroom, neighbourhood, or other community, focusing on the more social and visual elements to map out that space. b. If the aim is for a more realistic map, it might be important to review proper mapping elements such as compass rose, colouring, border, scale, etc.
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Supporting Sources (APA):

Alberta Education (1996). English Language Arts K - Grade 9. Retrieved from:

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Alberta Education (1996). Science Grades 1-6. Retrieved from:

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Alberta Education (1996). Social Studies K- Grade 12. Retrieved from:

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Huson, B. D. (n.d). Gitxsan – Brett Huson. Retrieved from <https://www.bretthuson.ca/gitxsan>

Huson, B. D. (2017). The Sockeye Mother (N. Donovan, Illus.). Portage & Main Press.

Gitxsan. (2005). Retrieved July 10, 2020, from <http://gitxsan.com/>