

Grade 7 Interactions and Ecosystems – The Grizzly Mother Vocabulary Lesson

Resources used and possible concerns	The Grizzly Mother by Hetxw’ms Gyetxw (Brett David Huson)
Author/creator and/or literature background	<p>Author: Hetxw’ms Gyetxw (Brett David Huson)</p> <ul style="list-style-type: none"> <li>- From the Gitksan Nation in Northwestern BC.</li> <li>- Has a background in film and television.</li> <li>- Use of literature to highlight the connection his people have to their land and how this connection is spiritual as well as scientific. <ul style="list-style-type: none"> <li>- The Grizzly Mother is the second book in his Mothers of Xsan series.</li> </ul> </li> <li>- Has won the Science Writers and Communicators of Canada book award, and the McNally Robinson Book for Young People Awards for his first book, The Sockeye Mother.</li> <li>- In an interview video uploaded by Dumas (2018), Brett Huson says that it was important for him to write his books by focusing on mothers. He says this is because his society is very matriarchal.</li> </ul> <p>Illustrator: Natasha Donovan</p> <ul style="list-style-type: none"> <li>- Métis illustrator and artist from Vancouver</li> </ul>
UPE course connections (not exhaustive)	<ul style="list-style-type: none"> <li>- EDUC 435: The Grizzly Mother and the Mother of Xsan series can be used to showcase how literacy extends beyond ELA and Social Studies classrooms, and how it can be useful in Science classrooms. It can be discussed how this text provides direct connections to discussions about ecosystems and nature, and can be used to enhance student learning.</li> <li>- EDUC 460 and 435: The Grizzly Mother can be used in the Science specialization classes as an example for how we can incorporate literature and Indigenous knowledge into the Science classroom. This will provide pre-service teachers with a tangible and meaningful example for how they can begin to meet the Applying Foundational Knowledge about First Nations, Métis and Inuit competency of the TQS.</li> </ul>

K-12 connection	<p>Grade 7 - Unit A: Interactions and Ecosystems vocabulary (more terms can be included)</p> <ul style="list-style-type: none"> <li>- Abiotic vs. biotic</li> <li>- Ecosystem</li> <li>- Basic needs</li> <li>- Symbiotic relationship (commensalism, mutualism, and parasitism)</li> </ul>
Materials	<ul style="list-style-type: none"> <li>- The Grizzly Mother by Hetxw'ms Gyetxw (Brett David Huson) – as many copies as possible, or something that can project the book onto a screen</li> <li>- Paper, pencil crayons, markers – for the definition board activity</li> </ul>
Rationale	<p>Big idea: Using Indigenous resources and showcasing Indigenous knowledge to teach students about the parts of an ecosystem.</p> <p>Purpose: Science is often taught using non-Indigenous resources, such as textbooks. While it is known that Indigenous people hold a strong spiritual connection to the land, they are often not credited for their robust scientific knowledge on the inner workings of ecosystems. In an interview with Hetxw'ms Gyetxw (Brett Huson), he talks about how it is often thought that Indigenous people do not know the science of the environment. He says that he wanted to, “showcase our knowledge. Showcase the connection we have to the land. Show that it is a scientific connection, albeit under different terms,” (Dumas, 2018). In fact, although Indigenous culture is vast in its diversity, Greenwood and de Leeuw (2007) argue that there are a few commonalities that exist. Specifically, they state that, “Indigenous philosophies are underlaid by a world view that recognizes interrelationships among the spiritual, the natural, and the self,” (p. 50). Therefore, this lesson is meant to amplify Indigenous voices and knowledge by framing the vocabulary found in the Interactions and Ecosystems unit in Grade 7 Science by using Brett Huson's story, The Grizzly Mother.</p>
Lesson/activities	<ol style="list-style-type: none"> <li>1. Ask students what they know about ecosystems and if they know what an ecosystem is. Have a class discussion on what the word ecosystem means and</li> </ol>

	<p>what can be found in an ecosystem – write these on the board</p> <ul style="list-style-type: none"><li>- As students start listing ideas, highlight patterns – are some of the ideas living vs. nonliving? Introduce the terms <u>abiotic</u> and <u>biotic</u></li><li>- Discuss the term <u>basic needs</u> by showing how some of the abiotic factors listed are things that the biotic factors may need to survive</li></ul> <p>2. Introduce the story for the activity they will be doing by acknowledging the storyteller and providing information on the Gitxsan to students (mention that they are an Indigenous group from northwestern BC who live along the River of Mist/Skeena River and like many Indigenous groups, they have a strong connection to their land)</p> <ul style="list-style-type: none"><li>- Emphasize who the story belongs to and the cultural context that it comes from:<ul style="list-style-type: none"><li>- The Gitxsan are a matriarchal society and the author believes that mothers and grandmothers do not always receive the respect that they should. Therefore, the title and the story are both heavily influenced by the Gitxsan's culture and beliefs surrounding the importance of mothers (Dumas, 2018).</li></ul></li></ul> <p>3. Before reading the story to students, provide them with guiding questions to think about while the story is being told. These questions could include:</p> <ul style="list-style-type: none"><li>- In what ways does the grizzly mother help her ecosystem? How does her ecosystem help her and her cubs? Were some of these unexpected?</li><li>- What are the types of abiotic and biotic factors that you noticed throughout the story?</li><li>- In what ways is your perspective on the environment similar and/or different from the perspective offered to us by the author? How might this book have been similar and/or</li></ul>
--	--

	<p>different from other non-fiction books that you have read before?</p> <ol style="list-style-type: none"><li>4. Read the story out loud to students (provided below is a pronunciation video uploaded by Portage &amp; Main Press/ HighWater Press (2017) for another one of his books that contains a few of the same words found in The Grizzly Mother; however, at the time of writing there is not yet a video for The Grizzly Mother itself)<ul style="list-style-type: none"><li>- Emphasize why the author includes words from his language (from the interview provided he talks about how it's difficult to translate things into English and that certain parts of his history or certain meanings cannot be translated to English. He says, "it's not a language of the world, it's a language that the world uses," (Dumas, 2018)).</li><li>- Additionally, ask the class if they speak another language and whether it has words that cannot be conveyed or translated to English</li></ul></li><li>5. Have students sit in small groups and give them some time to discuss the questions from above</li><li>6. Take time to briefly discuss these questions as a class<ul style="list-style-type: none"><li>- For question number 1, introduce the term <u>symbiosis</u> and the three types: <u>mutualism</u>, <u>commensalism</u>, and <u>parasitism</u></li><li>- Pay particular attention to question number 3 – we want students to be aware that many cultures and groups of people can contribute to scientific knowledge; however, not all groups are equally credited or included</li></ul></li><li>7. Activity – Ecosystem Definition Board<ul style="list-style-type: none"><li>- Ask students to title their definition board as 'Ecosystem' to emphasize that the words they are being asked to know are used to classify the parts of an ecosystem</li><li>- Students will create a page full of definitions that were covered from the day supplemented with</li></ul></li></ol>
--	---

	<p>examples from The Grizzly Mother with pictures of the examples to supplement their definitions</p> <ul style="list-style-type: none"><li>- Give groups of students a copy of The Grizzly Mother or project it onto the board using a document camera if there are not enough copies available</li><li>- Ask the groups to go through the book and find examples for each of the terms: abiotic, biotic, symbiosis (mutualism, commensalism, and parasitism [may not be able to find examples of parasitism in the book but that is fine! They should be able to recognize that there is predation but not necessarily parasitism]).<ul style="list-style-type: none"><li>- More words can be incorporated in this lesson if you feel some are missing</li></ul></li><li>- While students are working, tell them that while the author did not explicitly mention the words they are learning, there are still examples of them throughout the knowledge that he provided to us (this is important for bridging the gap between the Indigenous resource we are using, and the curricular knowledge students must know)</li><li>- Additionally, if you would like students to have a full vocabulary sheet as the unit progresses, they can be asked to leave room on the page so that they can incorporate more definitions at a later date</li></ul> <p>One example of how the definition sheet could look:</p>
--	--



Supporting Sources (APA):

Dumas, J. (2018, January 3). *Brett Huson, author of the sockeye mother* [Video file]. YouTube. <https://www.youtube.com/watch?v=LmYQ4C03f8o&>

Gitxsan Nation. (2013). *About the Gitxsan*. Gitxsan. <http://www.gitxsan.com/about/>

Greenwood, M., & de Leeuw, S. (2007). Teachings from the land: Indigenous people, our health, our land, and our children. *Canadian Journal of Native Education*, 30(1), 48-53. Retrieved from [https://www.researchgate.net/profile/Margo\\_Greenwood2/publication/313821932\\_Teachings\\_From\\_the\\_Land\\_Indigenous\\_People\\_Our\\_Health\\_Our\\_Land\\_and\\_Our\\_Children/links/58a775a0a6fdcc0e078aef43/Teachings-From-the-Land-Indigenous-People-Our-Health-Our-Land-and-Our-Children.pdf](https://www.researchgate.net/profile/Margo_Greenwood2/publication/313821932_Teachings_From_the_Land_Indigenous_People_Our_Health_Our_Land_and_Our_Children/links/58a775a0a6fdcc0e078aef43/Teachings-From-the-Land-Indigenous-People-Our-Health-Our-Land-and-Our-Children.pdf)

Huson, B. D. (2019). *The grizzly mother*. HighWater Press.

Portage & Main Press/ HighWater Press (2017, November 28). *The sockeye mother* [Video file]. YouTube. [https://www.youtube.com/watch?v=p\\_LvJDbsmkE](https://www.youtube.com/watch?v=p_LvJDbsmkE)