

Title: A Walk on the Tundra Lesson

Bio: I graduated from the Werklund School of Education in the Spring of 2020 and hold a Bachelor of Science in Conservation Biology from the University of Alberta. I have worked in the field of environmental education for several years where I've used place-based learning to foster my students' connection and appreciation for the natural world.

<p>Resources used and possible concerns</p>	<p>A Walk on the Tundra Written by: Rebecca Hainnu and Anna Ziegler Illustrated by: Qin Leng</p>
<p>Author/creator and/or literature background</p>	<p>Rebecca Hainnu</p> <ul style="list-style-type: none"> - Inuit author who lives in Nunavut and has written several books in an effort to pass on her knowledge. - K-12 educator in Nunavut and has received the NTA Award for Teaching Excellence. <p>Anna Ziegler</p> <ul style="list-style-type: none"> - Completed graduate research in archiving Inuit traditional knowledge. - Lived in Nunavut for several years and continues to work on projects with groups across the Inuit Nunangat (homeland of the Inuit in Canada). <p>Qin Leng</p> <ul style="list-style-type: none"> - Art has always been a part of her life and she has received many awards for her work. - Passionate about illustrating children's books and has illustrated numerous books in North America and South Korea.
<p>UPE course connections (not exhaustive)</p>	<p>EDUC 435 - Literacy, Language, and Culture</p> <ul style="list-style-type: none"> ● Incorporating this book into the classroom aligns with the idea of utilizing diverse texts in order for all students to see themselves as part of the learning environment. Further, this book promotes Indigenous culture through exposing readers to Inuktitut words and phrases. The plant glossary assists all readers with developing a deeper understanding of the natural elements of the north included in the text. <p>EDUC 450 - Diversity in Learning</p> <ul style="list-style-type: none"> ● Indigenous voices in the classroom promote a diverse learning environment. Through incorporating this text into the classroom, educators can assist all learners with creating connections to the north as traditional uses for plants are explored through the character's connection to the land.

	<p>EDUC 460/535 - Specialization I & II</p> <ul style="list-style-type: none"> • This text could be utilized to support subject specific learning objectives and outcomes. Opportunity to connect to elementary science, social studies, ELA, and art is available. The book presents traditional knowledge in a way that has the ability to connect readers to the natural world, promoting the importance of caring for the land. This theme can be expressed in a variety of ways including art projects, written response, and oral stories. <p>EDUC 520 - Interdisciplinary</p> <ul style="list-style-type: none"> • This book could be used in Grade 2 - 6 classrooms. Educators have the opportunity to approach this resource from an interdisciplinary lens and incorporate themes from the text to satisfy outcomes in multiple subject areas. For example, students could practice sketching plants (art), identify their anatomical parts (science), and then research their traditional uses (social studies). <p>EDUC 530 - Indigenous Education</p> <ul style="list-style-type: none"> • This book guides the reader to understand Indigenous education through demonstrating the importance of passing traditional knowledge on to younger generations. Further, this allows the reader to consider their own connection and appreciation for the land.
K-12 connection	<ul style="list-style-type: none"> - This resource could be used to support several curriculum outcomes for Grades 2 - 6. - For this plan, the lesson will focus on supporting Grade 4 Science outcomes: <ul style="list-style-type: none"> → Grade 4 Science Topic E: Plant Growth and Changes (Specific Learner Expectations 1, 3, 6, & 11).
Materials	<ul style="list-style-type: none"> - Book: A Walk on the Tundra - Science journals or blank paper and writing surface - Pencils, erasers, sharpeners - Plant field guides - SMART board or projector (to show map - or print hard copy)
Rationale	<p>Big idea: Students will create their own connection to the land through identifying plant species in their local schoolyard, park, or greenspace. Learning more about native species promotes understanding of local ecosystems leading to stewardship of these natural spaces in the future.</p> <p>Purpose: The characters in the book highlight the disconnect</p>

	<p>younger generations have from the land. Learning from Elders and other teachers in our life can promote sharing of knowledge between generations. Through a plant field study, students can learn more about their community and develop a creative way to share their new knowledge with younger students at their school.</p> <p>Options:</p> <ul style="list-style-type: none"> ● Plants included in the lesson are common to southern Alberta (grassland natural region). If the lesson is being taught in a different natural region please consult a subject matter expert or field guide. ● It is recommended to introduce the students to 5-7 plants during the field study. This allows them to understand the biodiversity of the natural area but focus on learning the unique details of a few species. More plants can be introduced in subsequent lessons if desired. ● Students can share their knowledge with others in a variety of ways. This may include storytelling, sharing field sketches, or creating an art piece using different mediums. Another option would be for this activity to be completed in a take home format. This would involve the students sharing their new knowledge with a younger sibling, family member, or friend. To ensure completion, students would have to write about the sharing experience and share it with the teacher for assessment.
<p>Lesson/Activities Part 1</p>	<p>Introduction</p> <ul style="list-style-type: none"> ● Introduce the class to the book ● <i>A Walk on the Tundra</i> is a story about a young girl who joins her grandmother on a journey to find different species (types) of plants. Along the way the girl discovers the value of these plants to the Inuit people and the importance of caring for nature. ● The Inuit people live in Canada's north. There are four Inuit regions in Canada (show map - https://www.itk.ca/about-canadian-inuit/) ● There are several different languages and dialects spoken in the region. The book includes many Inuktitut words and phrases. Inuktitut is the one of the official languages of Nunavut. ● Use the glossary in the book and have the students practice saying the most common Inuktitut words used in the book. <p>Read aloud and discussion</p> <ul style="list-style-type: none"> ● If possible, read the story outdoors as the book

	<p>highlights the importance of connecting to nature.</p> <ul style="list-style-type: none"> ● Ask clarifying questions while reading to promote connection and understanding. For example: <ul style="list-style-type: none"> ➤ What is a tundra? Where do we find these places? What do you already know about the tundra environment? ➤ What did Inuujaq learn from her grandmother? What lessons have you learned from older people in your life? ➤ What did the word irngutaq etc. mean? ● In small groups, have the students describe one of the plants in the story to each other. Discuss how the plants in the story were important both to people and the natural environment. <p>Field Study Prep</p> <ul style="list-style-type: none"> ● Next class, students will learn about some common plant species found in their schoolyard or local park/greenspace. Remind students to wear appropriate outdoor clothing for the next class. ● Observations will be recorded using sketches and written descriptions. ● After the field study, students will be asked to share their new knowledge with others.
<p>Lesson/Activities Part 2</p>	<p>Plant Field Study</p> <ul style="list-style-type: none"> ● In the next lesson, review the book and ask students if they have any questions or comments they would like to share. ● Have students prepare their journals or separate pieces of blank paper for their observations. Highlight the importance of recording the date as flowers bloom at different times of the year. Therefore, depending on when the field study is completed the plants we identify may not have their flowers present. ● Introduce the plants you will be helping the students identify. The plants included in the appendices of this lesson are common species that can be observed in the grassland natural region in the fall and spring. Winter identification is possible but it is considerably more difficult due to the absence of leaves. ● Research 2-3 facts about each plant to share with the students. This could include methods of seed distribution, amount of sunlight required, key characteristics, and traditional uses. <p>→ Example: Balsam Poplar (<i>Populus balsamifera</i>) - This tree</p>

	<p>is common to riparian areas in the grassland environment as it requires more water than other plants to grow. The tree releases its seeds in the spring when floods typically occur as the seeds favor the nutrient rich silt deposited from floods in order to germinate and grow. The Blackfoot would use the sap from the tree to treat headaches. (Royer & Dickinson, 1996).</p> <ul style="list-style-type: none"> ● After identifying the plant, allow students to create a detailed sketch of the species. This may include observing the leaves, bark, stem, branches, flowers, roots, and/or growing location. Students will also be encouraged to include 1-2 sentences about the plant in their notes for future reference. Students are welcome to discuss their observations with a partner (or share with the class) in order to fully capture all the unique details. ● At the end of the lesson, refer back to the book regarding how the grandmother shared her knowledge of the plants. The students will now have the opportunity to share their new knowledge of the plants they discovered today with others. This will likely be to a younger grade in the school. ● Brainstorm with the students how they might like to share their knowledge and encourage them to discuss their experience with someone at home. ● Next class, review the plants and discuss different ways to highlight their knowledge. Ensure the students have a say in how they would like to share their knowledge to promote engagement.
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Supporting Sources (APA):

Alberta Parks. (2015). *Natural Regions and Subregions of Alberta. A Framework for Alberta's Parks*. Alberta Tourism, Parks and Recreation.

<https://www.albertaparks.ca/media/6256258/natural-regions-subregions-of-alberta-a-framework-for-albertas-parks-booklet.pdf>

Hainnu, R., Ziegler, A., & Leng, Q. (2018). *A Walk on the Tundra*. Iqaluit, NUN: Inhabit Media Inc.

Inuit Tapiriit Kanatami. (2020). *About Canadian Inuit*. Inuit Tapiriit Kanatami.

<https://www.itk.ca/about-canadian-inuit/>

Royer, F. & Dickinson, R. (1996). *Wild Flowers of Calgary and Southern Alberta*. Edmonton, AB: The University of Alberta Press.

Appendix A

Photos of plants of the grassland natural region in Alberta taken by Meagan Dyck



Shrubby Cinquefoil (*Dasiphora fruticose*)



Red-osier Dogwood (*Cornus stolonifera*)



Silverberry (*Elaeagnus commutate*)



Canada Buffaloberry (*Shepherdia canadensis*)



Prairie Rose (*Rosa arkansana*)

Appendix B

List of plants common in parks and greenspaces in Calgary, AB

Common Name	Latin Name
Balsam Poplar	<i>Populus balsamifera</i>
Bearberry	<i>Arctostaphylos uva-ursi</i>
Bluebur	<i>Lappula echinate</i>
Canada Anemone	<i>Anemone canadensis</i>
Canada Goldenrod	<i>Solidago canadensis</i>
Canada Thistle	<i>Cirsium arvense</i>
Chokecherry	<i>Prunus virginiana</i>
Common Burdock	<i>Arctium minus</i>
Gaillardia	<i>Gaillardia aristata</i>
Goat's Beard	<i>Tragopogon dubius</i>
Golden Bean	<i>Thermopsis rhombifolia</i>

Harebell	<i>Campanula rotundifolia</i>
Northern Bedstraw	<i>Galium boreale</i>
Prairie Crocus	<i>Anemone patens</i>
Saskatoon	<i>Amelanchier alnifolia</i>
Trembling Aspen	<i>Populus tremuloides</i>
White Spruce	<i>Picea glauca</i>
Wild Blue Flax	<i>Linum lewisii</i>
Yarrow	<i>Achillea millefolium</i>

Book Information (from google sheet):

Title: A Walk on the Tundra

Author: Hainn, Rebecca & Leng, Qin & Ziegler, Anna

Grades: Grade 2 - 6

Themes: Inuktitut glossary, Arctic plants

Subjects: Science, Social Studies

Summary: The back of the book includes both an Inuktitut glossary and a picture plant glossary of arctic plants included in the book. A Walk on the Tundra follows Inuujaq, a little girl who travels with her grandmother onto the tundra. There, Inuujaq learns that these tough little plants are much more important to Inuit than she originally believed. Rebecca Hainn is Inuit.