

Chapter 5: Indigenous Ways of Knowing

Inquiry 2: Indigenous Traditional Knowledge

- < **Provocation** – Video
- < **Question Generation** – KWL, 5W's and H, Think, Puzzle, Explore
- < **Knowledge Building** – Umbrella Questions, Gallery Walk
- < **Determining Understanding** - Knowledge Building Circle, 3-2-1 Strategy, Concept Map, Video, Talking Stick
- < **Pursuing Learning** – Walking Curriculum, Strangers in a Strange Land, Norma's Story
- < **Consolidation** – Triangle-Square-Circle Headlines, I used to think...but now I think
- < **Assessment** – Doodle it, Assessment Suggestions
- < **Take Action**

Land Acknowledgement

Begin the inquiry by offering a land acknowledgment and discussing [why we acknowledge the land](#). It is essential to teach students that we must recognize the Indigenous land that the [school is on](#) to learn about and from it.

As educators, recognizing that these lands are the traditional territories of Indigenous people and that all Canadians benefit from the land plays an essential role in modelling reconciliatory behaviour with your students. Reciting your school's land acknowledgement helps create a foundation in students for learning about and from Indigenous people whose land we live on.

A land acknowledgement reinforces that we benefit from the land, and we all have a responsibility to actively work towards honouring Indigenous Peoples as equal partners in sharing the land. Land acknowledgments are only one step in cultivating greater respect for and inclusion of Indigenous Peoples, with the understanding of the importance of our [Treaty](#) responsibilities.

Chapter 5 Indigenous Ways of Knowing recognizes the importance of Indigenous perspectives and connections to land and place as we work towards reconciliation to address the Calls to Action of the Truth and Reconciliation Commission, particularly the call to "integrate Indigenous knowledge and teaching methods into classrooms" (clause 62) and "build student capacity for intercultural understanding, empathy and mutual respect" (clause 63).

Sharing stories is a way of sharing knowledge among Indigenous communities. Your classroom materials should be culturally diverse and inclusive of Canada's three distinct Indigenous groups. Here are a few examples of children's books that illustrate the importance of learning from our Elders and include the three distinct Indigenous groups.

- [The Elders are Watching](#) by [David Bouchard](#) and [Roy Henry Vickers](#) (Métis)
- [Nimoshom and His Bus](#) by [Penny M. Thomas](#) (First Nations Cree), illustrated by [Karen Hibbarb](#)
- [Nokum is My Teacher](#) by [David Bouchard](#), illustrated by [Allen Sapp](#) (Métis)
- [Oral Traditions and Storytelling](#) by [Anita Yasuda](#) (First Nations)
- [The Tree by the Woodpile](#) by [Raymond Yakeleya](#), [Jane Modeste](#) (First Nations Dene)

- [*Jigging for Halibut with Tsinii*](#) by [Robert](#) and [Sara Davidson](#), illustrated by [Janine Gibbons](#) (First Nations Haida)
- [*Making a Whole Person: Traditional Inuit Education*](#) by [Monica Ittusardjuat](#) (Inuit)
- [*Fishing with Grandma*](#) by [Maren Vsetula](#) and [Susan Avingaq](#) (Inuit), illustrated by [Charlene Chua](#)
- [*A Walk on the Tundra*](#) by [Rebecca Hainnu](#) and [Anna Ziegler](#) (Inuit), illustrated by [Qin Leng](#)
- [*Siha Tooskin Know the Nature of Life*](#) by [Charlene](#) and [Wilson Bearhead](#), illustrated by [Chloe Bluebird Mustooch](#) (First Nations Nakota)
- [*Sila and the Land*](#) by [Shelby Angalik](#), [Araian Roundpoint](#) and [Lindsay Dupré](#), illustrated by [Halie Finney](#) (First Nations, Métis and Inuit)

Teaching and discussing controversial and sensitive topics is essential because it helps students think in-depth and fosters critical thinking. Many issues involving First Nation, Métis and Inuit peoples are controversial (land claims, self-government, blockades, hunting and fishing rights) or sensitive (residential schools, worldview). Building in and addressing controversial or sensitive topics at an early age allows students to explore and question in the safety of the classroom. Teachers may use some of the suggested questions in this inquiry to introduce more sensitive issues regarding the inequalities faced by Indigenous People. Please keep in mind that Acts of Reconciliation and Reclamation are fundamental as we move forward as a country. Our acknowledgement, and inclusion of Indigenous literature and media helps to create an understanding of the history, diversity, and issues that many Indigenous peoples face.

It would be helpful for the learners to understand that traditional/cultural knowledge is passed as an: [I Do, We Do, You Do](#) model. This mentorship model provides the close watching and coaching of the learner by the teacher. This model would aid in learning from mistakes, as well as identifying areas of strength and need for reflection. This helps the person who is learning of how knowledge is passed on, to connect with the sacredness of our relationship with Creator, Mother Earth, the plants, animals, and all other animate and inanimate beings as part of the Creators making. (Daniel Sylvestre)



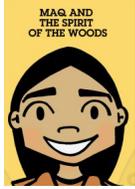
A. Provocation 2: [Video](#)

To hook student interest, use the following provocation to initiate student thinking.

Video – [Maq and the Spirit of the Woods](#) by [Phyllis Grant](#)

Maq and the Spirit of the Woods is the story of Maq, a Mi'kmaq boy who realizes his potential with the help of inconspicuous mentors. When an elder in the community offers him a small piece of pipestone, Maq carves a little person out of it. Proud of his work, the boy wants to impress his grandfather and journeys through the woods to find him. Indigenous people traditionally honour their elders. Their life experiences, combined with the knowledge passed on from previous generations, make them experts and teachers. This information was not

written down but passed down orally to each generation. Maq and his grandfather have a close relationship where they can speak honestly, respectfully and with empathy.



Phyllis Grant, “ Maq and the Spirit of the Woods”, NFB. 2006,8 mins

After viewing, discuss with students the importance of the knowledge, information and guidance older people such as Elders, Knowledge Keepers, grandparents, teachers, uncles, aunts, or mentors can offer. Students should be made aware that one must earn the right to become an Elder or Knowledge Keeper in a First Nations community. Not all Elders or Knowledge Keepers are seniors, nor are all old people Elders, and some Elders are younger. Elders and Knowledge Keepers are honoured because they have gifts of insight and understanding and are willing to share their knowledge. Discuss the role Elders or Knowledge Keepers play in Indigenous communities, provide picture books and other media that illustrate the connection Indigenous People have with the land to enhance the learning.

Post viewing discussion questions

What lessons did Maq learn along his journey? How did Maq develop his self-confidence during his trip?

Maq is a Mi'kmaq boy. Which distinct Indigenous group is Mi'kmaq?

Name three distinct Indigenous groups in Canada*?

Do all Indigenous People share the same traditions and knowledge*? In what ways do Indigenous peoples continue to pass on traditional knowledge from generation to generation?

Who do you have in your life that you would consider an Elder? What are the virtues that they practice and live by?

Elders are often considered wise and share their Indigenous Knowledge, can you explain why?

Why is it important to hear the views and stories of other people? What lessons can we learn from Elder's storytelling?

Who do you have in your life that you would consider an Elder? What qualities do they have that show they are humble, obedient, and have respect?

How do you show respect to your parents or other adults? How do you think respect is shown in Indigenous cultures? Why do people not always respect Indigenous knowledge?

Do you have an Elder, a grandparent, an uncle, an aunt or a mentor that shares knowledge with you about the land, family traditions, family recipes?

**Cultural diversity within the Indigenous people is frequently misinterpreted. There is a misconception that Indigenous People are one group who share the same culture, traditions, language and knowledge. Take the time to identify the three distinct Indigenous groups—First Nations, Metis and Inuit—and their unique connections to the land. Understand that these 3 distinct groups are identified by the Federal Government, that each Indigenous group on Turtle Island is distinct and that they all have their own distinct culture, traditions, language, governance, education, laws, customs, and ways of knowing. A small step students can take in respecting Indigenous people, and their culture is learning the three Indigenous groups and their unique traditions and knowledge.*



B. Question Generation

At this point in the inquiry, we want to harness students' curiosity and build off of the provocations that have captured their interest by generating meaningful questions to continue to drive the learning process. This section will outline several pathways for question generation depending on the provocation(s) that your class engaged with.

KWL Chart – Have students use a [KWL chart](#) to organize their learning during the question generation activity. In the first section, What We Know, students will activate prior knowledge, lessons they have learned or memories spent with grandparents, Elders, adults, uncles, aunts, teachers. Students can complete the What we Know section individually or in small groups.

K-W-L Chart

Assess what you know about a particular topic before and after you have engaged with it. Fill the columns below with what you **Know** about the topic, what you **Want** to know and what you've **Learned**.

What do you Know about the topic?	What do you Want to know?	What did you Learn ?



www.facinghistory.org

kwl chart handout, www.facinghistory.org

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In the second section of the template, *What do you want to know about Indigenous Ways of Knowing* or *What do we want to know about learning from our Elders*, some students may not know where to begin if they don't have much background knowledge on this subject. To help generate questions, use the [5W's and H Questions](#) - Students will be able to ask and answer questions using the five W's and an H (who, what, when, where, why, and how) to show understanding of key details of the video.

[Think, Puzzle, Explore](#) is similar to a KWL chart; it activates students' prior knowledge and helps them generate questions and stimulates their curiosity. This thinking routine provides you with a snapshot of what students may already know about the subject or topic.



Possible Questions

Who do you have in your life that you would consider an Elder? Grandparent, coach, teacher, uncle, aunt or mentor? What important things do you learn from this adult?

How can knowledge from Elders help scientists study climate change?

How can we apply the Elders understandings of sustainability to reduce the effects of climate change?

What can we learn from Elders to help us live sustainably in the face of climate change?

What message are Elders trying to share?

What changes have Elders seen in life on the land?

How has the weather affected the Elders community?

What are some of the changes in birds, animals and insects in other communities?

How have the weather patterns changed in the community?

What types of change have most affected First Nations, Métis and Inuit people?

What can First Nations, Métis and Inuit peoples teach other Canadians about sustainability?

Can you identify some other pressing environmental issues that are currently taking place in Canada? (Pipelines, clean drinking water in Northern communities)

Research different ways Indigenous people have used their knowledge of living things to meet their own needs.

Apart from Metis, First Nations, and Inuit, Name three distinct Indigenous groups in Canada?

Take time to explore and research



C. Knowledge Building

At this stage, students may be ready to engage in a group knowledge-building activity. It will encourage students to open their minds to many alternative ways of thinking about the provocations and the ideas generated thus far in the inquiry process.

Complete a [Gallery Walk](#). Invite students to draw a picture of something they have learned from an Elder. An Elder could be a grandparent, an uncle, an aunt or a mentor or teacher. Suggest to the students that the drawing could represent a tradition/knowledge shared by the adult or mentor. Display images on the classroom walls so they are easily visible to students. Have students get up out of their seats and circulate the room.

The gallery walk can happen silently or be an opportunity for peer discussions or a [writing](#) activity. During this activity, students can practice important discussion moves, including building on each others' ideas, asking clarifying questions, respectfully agreeing and disagreeing, and providing meaningful and actionable feedback. ***Have students practice being respectful when viewing other students' pictures; the diversity of cultures and traditions in your classroom is an excellent opportunity for a teachable moment.***

Provide an opportunity for students to share what they saw, thought, and wondered during the Gallery walk. Students can look at the drawings silently while circulating, respond in conversation with a gallery walk partner, or write their comments or questions on post-it notes and paste them next to the drawings.

[Umbrella Questions](#) - Brainstorm some umbrella questions with your students. An umbrella question is developed to help ground the inquiry. The question should be focused – it's not aiming to answer all aspects of an issue. The question should be of interest to the students and also connect to the topic of the inquiry.

- How can the knowledge that the Elders share help us learn about climate change?
- How can we apply the Elders understandings of sustainability to reduce the effects of climate change?
- What can we learn from Elders to help us live sustainably in the face of climate change?
- What are the Elders observing and learning by the changing seasons?
- What wisdom and warnings are the Elders sharing regarding ways people are abusing the land and resources?
- What impact do people have on the land? How does that make you feel?
- What type of knowledge did Elders need to know about their environment to survive in it for thousands of years?
- Can you create a list of the different things Indigenous people learned about to survive on the land?
- Can you identify some other pressing environmental issues that are currently taking place in Canada? (Pipelines, clean drinking water in Northern communities)

Research different ways Indigenous people have used their knowledge of living things to meet their own needs.

What types of change have most affected First Nations, Métis and Inuit people?

Identify the changes for each distinct Indigenous group.

What can First Nations, Métis and Inuit peoples teach other Canadians about sustainability?



D. Determining Understanding

Use responses to inform and guide the learning process. They can provide insight into which concepts need clarity, what many students are already well informed about, and a general direction that many students want to pursue.

[Knowledge Building Circles](#) - A Knowledge Building Circle is a class discussion activity that is specifically reserved for working out students' questions and ideas. The aim of the circle is to help all students to improve their understandings as they share their learning, ideas and ask questions. This communal activity deepens students' understanding through increased exposure to the diverse perspectives of the class. The KBC aligns with the Indigenous time-honoured tradition of the [Talking Circle](#) where individuals take turns sharing ideas.

With younger students, begin by viewing the book [The Sharing Circle](#) by elder and author Theresa "Corky" Larsen-Jonasson. During your knowledge-building circle, use a talking stick so students listen and share respectfully. The student holding the talking stick, and only that student, is designated as having the right to share while the other students listen quietly and respectfully. This Indigenous cultural tradition is used during ceremonies, storytelling and sharing experiences with Elders.

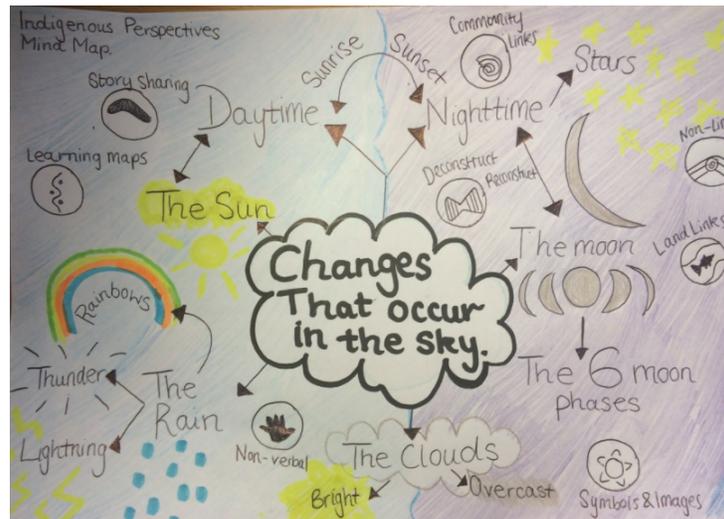
Here is an example of [Putting the Talking Stick into practice](#) - use during speaking and listening activities to allow students to interact with others, contribute to a class goal, share ideas and opinions, and solve problems. [Making a Talking Stick](#) for the class

Some Indigenous peoples use a rock when having a talking circle. This connects students to Grandfather Rock teachings, and to our connection with Mother Earth and our Ancestors. We seek guidance and wisdom when we include a rock in our talking circles, to ensure we are moving forward in a good way, as Creator intended us to be, Kind and Compassionate.

[3-2-1 Strategy](#) – this strategy is an easy way to check for student's understanding and use their responses to guide teaching decisions. [3-2-1](#) allows students to summarize their learning by identifying three things they have learned about Indigenous Ways of Knowing, two things that

interest them about learning from Elders and that they would like to learn more about and one question they still have about Indigenous Ways of Knowing

[Concept Maps](#) allow students to share their learning and knowledge with visual representations. Encourage the students to draw, incorporate words, messages, ideas anything they have learned about Indigenous Ways of Knowing. The [concept map](#) allows you to see how students understand the content. Example below.



[Indigenous Perspectives Mind Map](#)



E. Pursuing Learning

At this stage, students may begin research to pursue their umbrella questions, or some of the following activities could be integrated into the process to ensure that students have an understanding of foundational climate science. The activities listed below will enrich the understanding of climate change.

Indigenous peoples have been and are leaders of climate action; their role in monitoring climate change impacts and the environmental effects on traditional lands and waters play a critical part in our fight against climate change. There is a great deal that we can learn from how Indigenous peoples have lived sustainably with the Land for many years. They have adapted by travelling throughout their Land in search of food and other resources depending on the seasons. We need to listen carefully to better understand the value of Traditional knowledge and its contribution to sustainability and planning for the future. Indigenous communities have their own experts, elders, knowledge keepers and ways of knowing; their knowledge is an essential resource for learning how to adapt

to climate change. We need to value what they can bring to the climate conversation and actively seek it to guide us.

Watch [Norma's Story](#) an animated true tale of the profound effects of climate change on the environment, culture and food security on the people and wildlife of the Arctic.

These next two outdoor activities can help students understand the essential question How can Indigenous Ways of Knowing help scientists study climate change?

The [Walking Curriculum](#) provides the opportunity to take your students outdoors. The suggested walks introduce an indigenous perspective to the learning activities. For example, the What's Under Foot Walk relates the walk to Indigenous Peoples sense of the interconnectedness of all things. There is an understanding of the importance of taking care of the land and it will take care of you. Indigenous knowledge tells of an understanding of life cycles, sustainable harvesting practices and only taking what you need.

[Strangers in a Strange Land](#) – helps students appreciate the value of traditional knowledge in understanding the impacts of climate change on nature. Each student interviews several long-term members of the community who have spent a lot of time out of doors. Then, have the class share survey outcomes and compare and analyze the results.

Have student list ways in which climate affects his or her community. For example, fall weather brings salmon upstream and allows us to fish, winter snow makes it possible to ski, spring rain floods the fields where we grow crops, the break-up of sea ice in summer brings bowhead whales close to shore.

Encourage students to write down what they observe in their schoolyard, look at both the big and the small, and examine plants, rocks, and insects up close. Have them make a record in their journal of what they experience with each of their senses. Ask students to draw and label their pictures. Have them note the changes during the different seasons at different times of the year. Have them note/draw any changes they have observed over the school year and if the changes were caused by climate change.



F. Consolidation

This step is designed to encourage students to integrate and synthesize key ideas. When students make connections and see relationships within and across lessons, this helps them to solidify knowledge and deepen understanding.

[Triangle-Square-Circle](#) - This strategy encourages students to reflect on their learning and process information presented in this inquiry. This strategy should be used with the whole group

rather than as an independent task with the teacher charting ideas. Students share important pieces of information they have learned during the inquiry and question anything they don't completely understand.

1. Draw a triangle - next to it write three important points from the video or Elders
2. Draw a square - next to it write down anything that students agree with or squares with their thinking
3. Draw a circle - next to it write down anything that is still circling in their heads

[Headlines](#) – this activity allows students to reflect on their learning, understanding and beliefs. They examine how and why their thinking has changed and come to some tentative conclusions. What have the students learned from the video and activities throughout the inquiry. Have students share their headlines and create a bulletin board to display the learning.

[I used to think...but now I think](#) this activity helps students reflect on their thinking about an issue or topic and explore how and why their thinking has changed. It is important to encourage students to reflect on their learning as they investigate the impacts of climate change through diverse perspectives.



Assessment Ideas

[Doodle it](#) - Have students quickly draw a picture of what they understand instead of writing it. Create a collective poster depicting what students have learned from the Elders, stories and activities throughout the inquiry.

Assess students' knowledge and understanding by inviting them to write a text about an Elder in their life

Invite students to brainstorm the teachings that their elders have shared with them and how these teachings connect us with others, the land, histories, and our ancestors (to show we are accountable and that our decisions that we make affect others and the future generations).

Assess students thank you letters to verify the learning between Elders and the land
Connect with another class/school in the Arctic virtually. Learn how climate change is affecting their schoolyard and community and how their elders share knowledge with them.

Students could write letters, send emails to pen pals or connect virtually to other classrooms around the globe to explore and explain how climate change affects their communities explaining how climate change affects their community

Have students create a poster informing how Mother Earth provides for them and what they can do to protect her. Share the posters with other students by posting them on the classroom bulletin board or in the school hallway/entryway.

Gather evidence of learning with observations, thumbs up thumbs down, listening to conversations, anecdotal notes and comments, rough drafts

Conference with students - conversations can also include written evidence such as journals in which educators can read what students have to say about their learning rather than listening

Have older students complete a [What I Learned Today](http://efctoassessments.ca) self-assessment (efctoassessments.ca)

Have students express different ways to act in forests, parks, and other natural areas to show you respect the land in the medium of their choice.



Take Action:

Allowing time for students to take action is an essential part of the learning process on climate change, as it empowers students and eases their eco-anxiety. **Ask the students** what they want to do to positively impact climate change. List their ideas and come up with a plan to put their action in place.

Ideas for Taking Action:

Find a resource or field guide that describes how Indigenous communities have used plants for medicine, food or cultural purposes.

- Create a video or presentation urging others to take action. Presentations can be in the classroom or at a school assembly
- Have students create a poster informing how Mother Earth provides for them and what they can do to protect her. Share the posters with other students by posting them in the school hallway
- Organize a Cleanup in your schoolyard or nearby park
- Bottled water-free day: educate your school about bottled water and its impact on the environment. Commit to reducing the use of bottled water at school and consider selling reusable water bottles for students to purchase as a fundraiser.
- Waste-free lunches: school lunches are a significant source of waste in schools. Reduce the amount of food and packaging waste heading to the landfill by hosting a waste-free lunch day. Take it a step further and host these days regularly on "Trashless Tuesdays" or "Wasteless Wednesdays".
- Have regular "No-Tech" days. Encourage the understanding of how tech usage has an invisible drain on our electric infrastructure. Also include the need for our reliance upon our local environments, as opposed to a virtual one. This will help our students mental and physical health, to ensure that they can "turn-off" to reflect and recharge without distraction.
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- [Walk for water](#) - When senior students at Seven Oaks Met School learned that the local community of Shoal Lake 40 First Nation (the very community where most of Winnipeg's drinking water is sourced!) has been under a boil water advisory for over 20 years, they were inspired to take action. They organized speakers and elders from Winnipeg and Shoal Lake to educate the audience about the water crisis. The event raised over \$7,000 for the Shoal Lake 40 First Nation community and spread awareness across the region.

- The [Shaughnessy Medicine Wheel Garden](#) in Winnipeg was designed as a teaching garden, incorporating the medicine wheel's circle teachings, including fire, Water, air, and Earth. The plants and flowers reflect these elements and colours in each quadrant and feature Manitoba's traditional medicines and indigenous plants. Thirteen boulders encircle the garden to represent the 13 moons of the year, and seven cedar benches will represent the seven teachings. Providing an outdoor learning space for students and a natural setting to enjoy the environment for the local community.
- [MMHS Arboretum, Community, Indigenous and Medicinal Plant Gardens](#) Students, staff, community members and partners began planting trees, shrubs and wildflowers at Milliken Mills High School in 1994. Since that time, the arboretum and associated gardens have been enhanced and have flourished. This year we have made every effort to expand the nature of the gardens with an interpretive guide created by students across the curriculum. This, while the physical and plant make-up of the garden continues to evolve. This year, despite the challenges of face-to-face learning and participation, we established the indigenous medicinal plant garden and created a strong cross-departmental partnership in the school, which will see the roots truly become shoots as the project will become stewarded through teamwork.
- The Herb Campbell Public School has created a visual landscape plan for a [Medicine Wheel Garden Outdoor Classroom](#) on our school site, which includes: A centred medicine wheel garden with indigenous plants surrounded by stone seating and an outdoor classroom frame; 9 local food gardens including six raised-bed gardens (for herbs, vegetables, fruit, and edible flowers) and three in-ground gardens (a Three Sisters garden, an indigenous berry garden, and a pumpkin patch); 4 outer garden areas with indigenous plants, shrubs, and trees connected to the four cardinal directions of our centred Medicine Wheel Garden; A wildlife observation/inquiry area with feeders, water supply, and log stump seating; Interpretative learning signs; Pathways connecting to our natural forest, meadow, and wetland habitats and other planting areas.
- [Oak Park Outdoor Indigenous Learning Place](#) created an outdoor Indigenous learning space that allows students, staff, and the community to connect with nature and celebrate Indigenous culture, tradition, and teaching. This project has many stakeholders, including Indigenous and non-Indigenous students, Indigenous knowledge keepers (academics, community members, Elders), and various divisional staff. To have all staff and students embrace Indigenous ways of knowing, doing, and being; to enhance our Indigenous students' engagement and success in school. Having a teaching space in front of our school demonstrates our commitment to our school goal and reconciliation. It will also create endless opportunities for teaching and learning that honours, centres, and celebrates Indigenous culture.
- [Youth Climate Solutions](#) is a guide for making a difference for polar bears and their sea ice home. Visit Polar Bears and the Changing Arctic at [Polar Bears International](#) to learn more about the Arctic Ecosystem and how we can help protect this remarkable part of the planet.

- Visit [Our Canada Project](#) for many more action project ideas! This platform inspires youth to be responsible citizens and share their voice