

Chapter 5: Indigenous Ways of Knowing

Inquiry 2: Indigenous Perspective - Environmental sustainability

- < **Provocations** – *Video*
- < **Question Generation** – *Round Table Activity*
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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 Indigenous groups.

[A Day with Yahah](#) by [Nicola I. Campbell](#) (Métis, First Nations Salish), illustrated by [Julie Flett](#) (Cree-Métis)

[Call of the Fiddle](#) by [Wilfred Burton](#) and [Anne Patton](#) illustrated by [Sherry Farrell](#)

[Racette](#) (Métis)

[The Giving Tree: A Retelling of a Traditional Métis Story](#) by [Leah Dorion](#) (Métis)

[Byron Through the Seasons](#) by [Dene Children](#) (First Nations Dene)

[The Elders are Watching](#) by [David Bouchard](#) and [Roy Henry Vickers](#) (Métis, Ojibway, Anishaabeg)

[Fishing with Grandma](#) by [Maren Vsetula](#) and [Susan Avingaq](#) illustrated by [Charlene Chua](#) (Inuit)

[niwîcihâw / I Help](#) by [Caitlin Nicholson](#) (First Nations Cree)

[A Walk on the Tundra](#) by [Rebecca Hainnu](#) and [Anna Ziegler](#) (Inuit), illustrated by [Qin Leng](#)

[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)

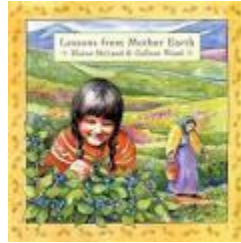


A. Provocation 2: [Video](#)

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

[Lessons from Mother Earth](#) by [Elaine McLeod](#) and [Colleen Wood](#)

This video is a gentle story that shares the Indigenous tradition of taking care of Mother Earth. This video is used as a hook to introduce the topic of environmental sustainability from an Indigenous perspective. Earth is referred to as 'Mother Earth,' honouring the belief that the planet, as in all things, is living and has value.



(Wood, Colleen. Cover illustration. *Lesson from Mother Earth* by Elaine McLeod, Groundwood Books Ltd. Front Cover, 2002)

Post Viewing Activities

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.

Discussion questions

- Where is Tess' grandma's garden?
- What are Tess and her grandmother doing?
- Who do you think Mother Earth is?
- What does Mother Earth mean to Indigenous Peoples?
- How do you help Mother Earth?
- Why is it important to pick the right amount from the plants?
- Why do you think it is important to thank Mother Earth for the gifts she provides?
- How does Grandma show thanks to Mother Earth?
- Why does Tess thank the Spirit for a wise grandma?
- Discuss why it is important to respect the land, the garden. Define "respect" to the class.
- Tess's grandmother is sharing Indigenous Knowledge? What does this mean?
- What do Indigenous People teach us about the land? How are these teachings important to help us understand how we interact with Mother Earth?
- In what ways do Indigenous peoples continue to pass on traditional knowledge from generation to generation?
- Do all Indigenous People share the same traditions and knowledge?

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.

Round Table Activity – Divide your students into groups of three or four, and give each group a flipchart paper and markers. Write words on the board that reflect the video, such as Mother Earth, lessons, Tess, grandmother, garden, care, gifts. Have students write questions using diagrams, drawings, words, or anything relevant to the video.

Possible Questions

- What does Tess's grandmother mean by her "garden?"
- How can we take better care of our garden (Mother Earth) together?
- Why and how do we show respect to Mother Earth?
- What kinds of lessons might we learn from Mother Earth?
- What does Mother Earth mean to Indigenous Peoples?
- How do you experience nature in your life?
- What do Indigenous People teach us about the land?
- How do Indigenous peoples continue to pass on traditional knowledge from generation to generation?
- 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?
- What lesson have you learned from a grandparent, an uncle, an aunt, a mentor or another adult?
- 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?



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.

[Umbrella Questions](#)

- What types of plants are in my area? What plants can I eat or use from nature's garden?
- Why is it important to pick the right amount from the plants?
- What do we need to know about the land to live on it? What do indigenous People teach us about the land?
- Why do Elders know so much about the land?
- What type of knowledge did Elders need to know about their environment and ecosystems to survive on it for thousands of years?
- How do Indigenous peoples continue to pass on traditional knowledge from generation to generation?
- Can you create a list of the different things Indigenous people learned about to survive on the land?
- Research different ways Indigenous people have used their knowledge of living things to meet their own needs.
- How do you show thanks to Mother Earth? Why is it important to take care of our environment?

[Knowledge Building Circles](#) – A Knowledge Building Circle is a class discussion activity to work out students' questions and ideas. The circle activity aims to help all students improve their understanding by sharing their learning, ideas, and questions. This communal activity deepens students' knowledge through increased exposure to the diverse perspectives of the class. The KBC aligns with the Indigenous tradition of the [Talking Circle](#), where individuals take turns sharing ideas.

Begin by viewing the book [The Sharing Circle](#) by elder and author Theresa "Corky" Larsen-Jonasson. Use a talking stick during your knowledge-building circle, so students listen and share what they have learned 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 practiced 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.



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.

- Write a letter to Tess explaining how you feel about nature and what you have learned from her grandmother. In your letter, share adventures or traditions you have experienced with your grandparent, uncle, aunt, or another special adult in your life.
- [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. This activity can be completed as a group activity or individually.



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.

[I used to think...but now I think](#)

- Review how climate change is changing the weather/seasons; how would this affect Grandma's garden?
- Have students brainstorm how local farmers, pilots, mail carriers are affected by climate change?
- How is climate change changing the land and ways of Indigenous People?

[Doodle/Sketching](#) - Have students draw a picture explaining how climate change affects their school day. Need for more air conditioning, changing weather patterns, air quality, floods, wildfires, anxiety due to misinformation about climate change, cancelling recess due to heat or cold, increased outdoor air pollution levels.



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 should be used with the whole group rather than as an independent task with the teacher charting ideas. Students share important information they have learned about Indigenous Ways of Knowing and question anything they don't completely understand.

1. Draw a triangle - next to it, write three important points from the video or questions
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



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, Indigenous Ways, 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 affects their schoolyard and community and how their elders share knowledge with them.

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

Students could write letters or send emails to pen pals explaining how climate change affects their community.

Have students create a poster or concept web, 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 bulletin board in the school hallway.

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](#) self-assessment.

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. Remind students that even when things get hard and seem so big they can always do something by taking an action. Their actions will create an impact.

Ideas for Taking Action:

- 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.
- [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.
- Watch [Plant for the Planet](#) and Meet Felix Finkbeiner whose organization has helped plant billions of trees, then create a schoolyard planting site that acts as a mini-climate change outdoor classroom/lab. Plant trees to create an urban tree canopy to absorb CO2 and reduce the need for air conditioning by shading your schoolyard
- [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.
- Visit [Our Canada Project](#) for many more action project ideas! This platform inspires youth to be responsible citizens and share their voice
- [A Toolkit for Schools - Climate Leadership](#) by EcoSchools provides many easy to implement action project suggestions

