



CHAPTER 5: Indigenous ways of knowing

*A Project of Learning for a Sustainable Future
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Art by Joanne Robertson, Water Protection Activist, Author & Illustrator of the Water Walker

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Chapter 5. Indigenous Ways of Knowing

This inquiry looks at how Indigenous peoples' traditional knowledge, skills and practices, passed down from generation to generation, play a vital role in understanding climate action. Indigenous peoples have been, and are leaders, of climate action; their roles in monitoring climate change impacts and the environmental effects on their traditional lands and waters play a critical part in our fight against climate change. (NRCAN p.117)

There is a great deal that we can learn from how Indigenous peoples have lived sustainably with the Land for countless generations. Indigenous peoples have adapted by travelling throughout their Land in creating a balance with food sources and balancing resource use, depending on the season. We need to listen carefully to better understand how Traditional knowledge, and its application, contribute to environmental sustainability and planning for the future. According to the NRCAN report, incorporating diverse perspectives and sources of knowledge, such as Indigenous Knowledge Systems, is also imperative for effective adaptation (NRCAN all chapters).



Illustration by Joanne Robertson, water protection activist, author & illustrator of [The Water Walker](#).

The National Issues Report identifies four key strengths of Indigenous and local knowledge systems (NRCAN p.118) in the context of understanding and responding to climate change, including:

1. understanding, monitoring and recording climate change impacts;
2. enhancing adaptive capacity and building resilience;
3. supporting sustainable risk reduction strategies; and
4. informing decision-making and policy change.

In this inquiry, we suggest activities, books, and resources that explore various examples of these Indigenous Ways of Knowing and how the teachings and learning is passed on from one generation to the next. Indigenous communities have their own experts, elders, knowledge keepers and ways of knowing; their knowledge is a valuable and essential resource for learning how to adapt to climate change (NRCan.p.131). Indigenous Ways of Knowing is knowledge that we need to value so we can learn what they understand to help the climate conversation and actively seek it to guide us (NRCan p.115).

Mi'kmaq Elder Albert Marshall coined the phrase Etuaptmumk/"two-eyed seeing" this way: (2004)

"I, you and we need to learn to see from one eye with the best or the strengths in the Indigenous knowledges and ways of knowing... and learn to see from your other eye with the best or the strengths in the (Western) knowledges and ways of knowing... but most importantly, I, you, and we need to learn to see with both eyes together, for the benefit of all." Elder Albert Marshall, [EdCan Network](#), May 29, 2018

View [Indigenous Knowledges and Two-Eyed Seeing: An In-Depth Conversation with Elder Albert Marshall](#) - A dialogue about the importance of Indigenous Knowledge and the Two-Eyed Seeing in addressing climate change and creating a resilient future. The webinar was organized by *Prairie Climate Centre at the University of Winnipeg*

General Introduction to the inquiries in this chapter:

Indigenous Ways of Knowing

This chapter offers three different structured and scaffolded inquiries to support Indigenous Ways of Knowing. Indigenous People have passed on traditional knowledge from one generation to the next to learn to live sustainably with the Land. These enquiries explore various examples of these Indigenous Ways of Knowing and how the teachings and learning are passed on from one generation to the next. Each of the three inquiries begins with a provocation followed by numerous strategies and examples. These explorations can be completed in their entirety as written; however, because we know inquiry is an organic and fluid process based on student input, educators may wish to take aspects of each of the ideas presented and adapt, modify or replace what's suggested to create their inquiry with their class. Therefore, it is suggested that teachers review the whole chapter first to determine and plan what works best with their particular group of learners.

The following three inquiries are connected to curricular concepts, as shown in this chart. These curricular concepts are applicable across Canada.

Curricular Connections	Concepts
Citizenship	Respect Foster Appreciation Cultural Awareness
Social Studies	Diverse perspectives - First Nations, Métis, Inuit Cultural Diversity Indigenous languages Indigenous Ways of Knowing Traditional Knowledge Balance Family and Community roles Elders
Language	Critical Literacy Oral Communication Retelling Storytelling Active Listening Responding Storytelling Speaking and listening activities to share ideas
Science	Ecosystems Seasonal Cycle Time and Place Experiential Learning Natural Environment Adaptations Environmental Sustainability Climate Change

The Arts	Creativity innovation interpretation colour space Media
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Inquiry 1: Indigenous Perspectives- Living in Relation with the Land

Students learn the importance of observing and living in relationship with the natural world through the wonders of the seasons. Relationship to the seasons and seasonal cycles are foundational to many Indigenous People. Indigenous knowledge passed from generation to generation is continuously shifting because of the changes in the seasons caused by climate change.

Resources:

- **Book** - Read aloud [Mii maanda ezhi-gkendmaah/This is how I know](#) or watch [online](#)

Inquiry 2: Indigenous Perspective - Environmental Sustainability

This inquiry will introduce students to environmental sustainability and present the Indigenous people's way of life and respect for the land. Students will learn how Indigenous knowledge teaches us about sustainable harvesting and how Mother Earth provides. This knowledge is passed from generation to generation and continues to change as time passes, and new learning occurs.

Resources:

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

Inquiry 3: Indigenous Perspectives - Connections To The Land

This inquiry examines Indigenous people's way of life and respect for the land. The activities explore the role of Elders and Knowledge Keepers and the importance of caring for Mother Earth.

Resources:

- Create a [provocation table](#) indoors or outdoors

Chapter 5 : Indigenous Ways of Knowing

Inquiry 1: Indigenous Perspectives- Living in Relation with the Land

- < **Provocation** – *Book*
- < **Question Generation** – *5W's and H Questions*
- < **Knowledge Building**– *Umbrella Questions, Gallery Walk, See Think, Wonder*
- < **Determining Understanding** – *Yes/No cards, Knowledge Building Circle, Video, Talking Stick*
- < **Pursuing Learning** – *Carousel Brainstorming, Outdoor Activity*
- < **Consolidation** – *Consolidation Discussion, Think-Pair-Share*
- < **Assessment** – *Assessment Suggestions*
- < **Take Action** – *Action Project Suggestions*

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 demonstrating 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)

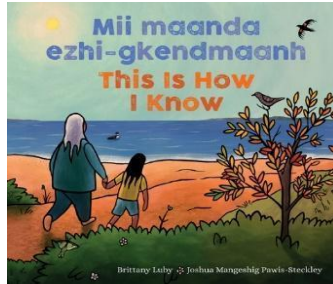


A. Provocation 1: [Book](#)

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

Book - [Mii maanda ezhi-gkendmaah/This is how I know](#) by [Brittany Luby](#), illustrated by [Joshua Mangeshig Pawis-Steckley](#)

An Anishinaabe child and her grandmother explore the natural wonders of each season in this lyrical, bilingual story poem. Brittany Luby created the book inspired by her childhood memories of time spent with knowledge keepers.



Mangeshig Pawis-Steckley, Joshua. Cover illustration. *Mii maanda ezhi-gkendmaah/This is how I know* by Brittany Luby, Greenwood Books Ltd. Front Cover, 2021

As you read the book, help students become aware of the knowledge, information and guidance older people such as elders, grandparents, teachers, uncles, aunts, or mentors can offer. Students should be made aware that one must earn the right to become an Elder in a First Nations community. Not all Elders are seniors, nor are all old people Elders, and some Elders are younger. Elders are honoured because they have gifts of insight and understanding and are willing to share their knowledge. Discuss the role Elders 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

- Why did author Brittany Luby decide to write this book?
- What kind of signs in nature did the little girl see that let her know which season it was?
- What did you notice about the title of the book?
- Which Indigenous language do you think that is*?
- Can you name the three [Indigenous groups](#) in Canada?
- The Anishinaabe People are part of which group?
- What do you think [Anishinaabe](#) means?
- Do all Indigenous People share the same traditions and knowledge**?
- What is an Elder or Knowledge Keeper?
- What can we learn from the Anishinaabe People and their connection with the Land?

** This question is an opening to a conversation about how Indigenous children were not allowed to speak in their language at school - this inequality affected children, families, communities and Indigenous People as a whole.*

*** 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.

- Lead a whole-group discussion and brainstorm around the book's theme with the goal of students generating questions about the role of Elders or Knowledge Keepers and their Indigenous Ways of knowing.
- Review the pictures in the book with the students and guide them to generate their questions.
- **5W's and H Questions** - Students will be able to ask and answer questions using the five Ws and an H to show understanding of key details in a text. Help younger students with question starters. (Who, what, where, when, why and how)

Who?	What?	Where?	When?	Why?	How?

Possible questions

How do you know which season it is?

How did you learn to identify the different seasons? What physical changes do Indigenous People use to identify changes with the seasons?

How does Mother Earth let you know it is summer, fall, spring, winter? Who helped you learn this?

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 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 do we need to know about the land to live on it? 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?

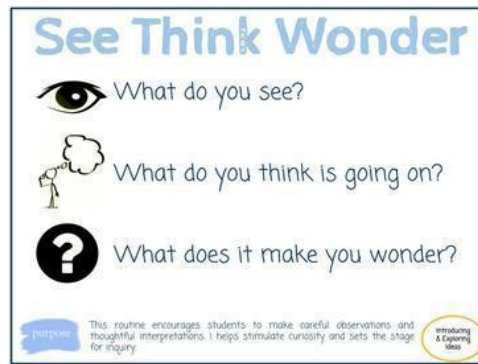
What type of knowledge did Elders need to know, and share, about their ecosystems and environment to survive in it for thousands of years?

Can you create a list of the different things Indigenous people learned about to survive on the land?

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

Complete a [Gallery Walk](#). Invite students to draw a picture of themselves with an Elder, a grandparent, an uncle, an aunt or a mentor doing a special activity together or learning a new tradition or skill. 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.

Use the [See Think Wonder](#) strategy to explore the pictures drawn by the students. Encourage students to observe and ask questions about other students' traditions, grandparents or other adults. This can be a discussion activity with younger students, while older students can use the template to generate their questions. ***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.***



<https://thinkingpathwayz.weebly.com/uploads/1/0/4/4/104440805/published/see-think-wonder.jpg?1519357662>

All of the thinking routines mentioned on this website have been adapted from the work of Ron Ritchhart, Mark Church and Karin Morrison (2011) Making Thinking Visible.



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.

Yes/No cards – Use index cards and have students write Yes on one side and No on the other in large letters. Ask review questions about the lesson that require only a yes or no answer, and instruct the students to hold up the correct answer. This activity is a quick and easy way to assess students' understanding.

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.



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.

Carousel Brainstorming – Write each topic/question at the top of a chart paper and tape the paper to the wall.

Topics can include:

- Wonders of the four seasons,
- Animals, plants and changes in the natural surroundings
- Indigenous Ways of Knowing,
- Respecting Elders knowledge and wisdom

Complete the activity by identifying the similarities between the chart papers. Discuss how Indigenous knowledge passed from generation to generation is continuously shifting because of the changes in the seasons caused by climate change.

Post guiding questions about the major topics in the story

How is climate change affecting or changing the weather/seasons?

How can listening and reflecting on the knowledge Elders share help us to protect our Mother Earth?

How would I practice the knowledge that Elders share in my daily life?

How can I protect my health during hot, sunny days?

In what ways would we have to adapt in order to cope with climate change?

How will people live off the land if we can't stop climate change?

Outdoor Activity - Get outdoors to play [Maple Trees and Marmots](#), an activity that explores the effects of climate change on animals and plants through role-playing games. This activity allows students to understand how climate change may affect plants and animals. Another game [Lynx and Hare](#) introduces the concept of predator and prey relationships and how their adaptations can be affected 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.

Consolidation Discussion

- Ensure that every student can describe what they did, why they did it, and what they found out during the inquiry during a discussion session
- Have students write a thank-you note to the land, the seasons, Elders, grandparents or other adults who teach them things about their culture or nature. Describe how and why you are thankful.
- Have students create a picture or collage of things from the land which they are thankful for

Think-Pair-Share

- Students reflect on their learning by reading their letters or sharing their pictures/collages. They turn around and share their letter or artwork with another student.



Assessment Ideas

- Assess students' knowledge and understanding by evaluating their Gallery Walk pictures
- 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://eptoassessments.ca) self-assessment (eptoassessments.ca)
- 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
- 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
- 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.
- Have students write a letter expressing what they can do to help take better care of the land, animals and water.



G. 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:

- Have students learn more about their local environment and how they can care for it.
- Make 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.
- [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

Chapter 5: Indigenous Ways of Knowing

Inquiry 2: Indigenous Perspective - Environmental sustainability

- < **Provocations** – *Video*
- < **Question Generation** – *Round Table Activity*
- < **Knowledge Building**– *Umbrella Questions, Knowledge Building Circles, Video, Talking Stick Activity*
- < **Determining Understanding** – *Writing Activity, Concept Map*
- < **Pursuing Learning** – *I used to think...but now I think, Doodle/Sketch*
- < **Consolidation** – *Triangle-Square-Circle*
- < **Assessment** – *Doodle it, Assessment Suggestions*
- < **Take Action** – *Ideas for Taking Action*

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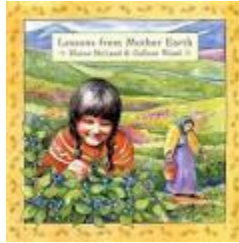


A. Provocation 2: [Video](#)

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

Chapter 5: Indigenous Ways of Knowing

Inquiry 3: Indigenous Perspectives - Connections To The Land

- < **Provocations** – *Provocation Table*
- < **Question Generation** – *The answer is... Activity*
- < **Knowledge Building**– *Umbrella Questions, Community Expert*
- < **Determining Understanding** – *Doodling/Sketching*
- < **Pursuing Learning** – *Natural Inquirer, Walking Curriculum*
- < **Consolidation** – *Mapping/Neighbourhood Walk/Think-Pair-Share*
- < **Assessment** – *Poster/Assessment Suggestions*
- < **Take Action** - *Ideas for Taking 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 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)

[niwícihâw / 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 3: [Provocation Table](#)

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

Create a [provocation table](#) indoors or outdoors – Gather an assortment of Indigenous storybooks about Elders, including the three distinct Indigenous groups in Canada. Add natural objects such as sticks, leaves, feathers, pictures of edible plants, soil samples, photos of Elders, grandparents, uncles, aunts, teachers, fruit such as blueberries, strawberries, photos of the changing seasons, animals and cards with the names of the 3 Indigenous groups, First Nations, Métis and Inuit displayed on the table. Choose items that connect students to the land they can touch and explore.

- Allow students the choice to stay at the table or take what they need and engage in their inquiry. Some students will be more inclined to sit at the table and write, draw, record,

and observe, while others may prefer to walk around, explore, and inspect the items on the table.

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.



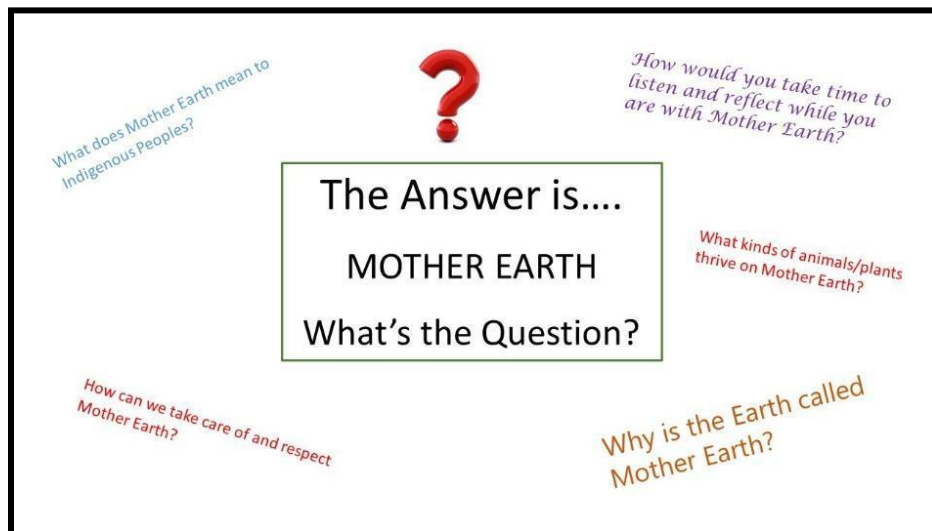
B. Question Generation

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.

Choose one activity – complete with the students as a group activity

1. The Answer is....activity - Write the answer **Mother Earth** on the board and ask students to write a possible question or brainstorm questions together

- Why is the Earth called Mother Earth?
- What kinds of things live on Mother Earth? What kinds of animals/plants thrive on Mother Earth? What kinds of animals/plants are suffering on Mother Earth?
- What kinds of lessons might we learn from the Earth?
- How can we take care of and respect Mother Earth?
- How would you take time to listen and reflect while you are with Mother Earth?
- What does Mother Earth mean to Indigenous Peoples?



2. The Answer is....activity - Write **Indigenous Ways of Knowing** on the board and ask students to write a possible question or brainstorm questions together. If students are having difficulty generating questions about Indigenous Ways of Knowing, read one book about Elders for each Indigenous group.

- What did you notice about all the items on the table? How are they similar?
- Name three distinct Indigenous groups in Canada?
- How do you connect with the items on the table?
- 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?
- 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?

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.



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](#)

- Why are Indigenous peoples known as caretakers of the Earth?
- How can you become a caretaker of the Earth?
- What can you do to take care of the Earth around your home or school?
- What kinds of lessons might we learn from Mother Earth or Indigenous Ways of Knowing?
- How can we as students protect Mother Earth?
- Discuss why it is important to respect the land, the garden. Define "respect" to the class.
- Who do you have in your life that you would consider an Elder?
- What role does your Elder play in your community?

[Community Expert](#)

Deepen the learning experience for the students by inviting an Elder or Knowledge Keeper to share indigenous knowledge. Prepare questions to ask the Elder.

Connect with your school's Indigenous Education department to speak to an Indigenous education specialist and enquire about education or cultural programs available. Also, to inquire about who you can utilize in your classroom/school for the curricular concepts that you feel need connections to Indigenous ways of knowing that will enhance inquiry into environmental sustainability and relationships with Mother Earth.

Observe appropriate protocols and acknowledgements when including elders and knowledge keepers in your school/classroom.

Plan a field trip that fosters a greater understanding of Indigenous Ways of Knowing.

In Indigenous cultures, the Elder is highly regarded as a role model in their community and is considered the keeper of knowledge. A gift must be prepared by the person requesting the visit and offered to the Elder at the time of the request. For more information regarding [Elder Wisdom in the Classroom](#)



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.

Doodling/Sketching strategy.

- Ask students to draw some of the significant people in their lives, including their connection in the community (an Elder, a grandparent, a teacher, a coach). Have students draw out their understanding using the doodle/sketching strategy
- Draw this significant person in their role in the community; how does this person help you?
- What do you know about why it is important to protect the land?
- Why is it important that we all share our knowledge about how we should protect Mother Earth?
- Draw what you have learned about Elders or Indigenous People to protect the land.



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.

Natural Inquirer – Ask students how climate change affects their local environment. Brainstorm with the students the plant's needs such as the sun, water, soil nutrients, pollinators, etc. Discuss how plants are affected by climate change. Discuss how animals and plants are adapting to climate change. Students use interview techniques to research and write about an animal or plant affected by climate change in this activity.

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 interconnectedness. 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.

(Walking Curriculum by Gillian Judson Indigenous connections are suggestions only – created by Nadine McSpadden & Heidi Wood)

- Discuss how we receive resources from trees.
- Discuss what will happen to other living creatures if we keep destroying forests.
- How can we protect the forest from the harmful effects of climate change and humans?



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.

Mapping

Walk and explore the neighbourhood and have students use their senses to explore trees and plants. Have students create their own identification system. Draw a map with the students of plants, trees, shrubs in the schoolyard. Have students identify how they can take care of these trees and plants and respect the land.

Think/Pair/Share

Complete a nature scrapbook or collage – have students collect samples from the natural world that remind them of their connection to the land and living things. Do a think/pair/share and allow students to share their scrapbooks and explain why they chose those samples

Include activities to show appreciation when learning from the land. Write a thank-you note to the land, the water, elders, grandparents who teach you things about your culture or nature. Describe how and why you are thankful.

Say a word of thanks. Initiate a quiet moment of gratitude. Students can share individually or as a group.

Write thank-you notes to the Land, the Water, people who teach you things about your culture or nature. Also, take time to be with these plants, by the water, and close to the earth so you can give thanks for the sacrifices they make so we can be here on this earth. (prayers and intentions).



Assessment Ideas

- Poster - 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.
- 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

- 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)
- Create a collective poster or concept web, depicting what students have learned from the Elders, stories and activities throughout the inquiry
- 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
- 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.



G. 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:

- Get outside and learn the names of the plants and animals in your area with local indigenous and non-indigenous groups. Look for plants that can be used for simple home remedies.
- 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.

- Participate in the [Planting for Change program](#), which helps your school create a schoolyard planting site that acts as a mini-climate change outdoor classroom/lab.
- Students can collect data on the health and yearly growth of their tree plantings as they explore issues surrounding climate change locally and globally.
- [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.

- [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.

Other Resources

- 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