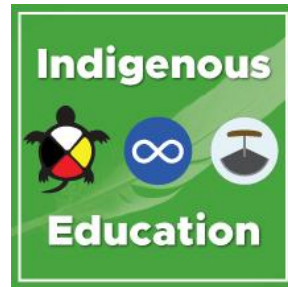


Making Connections with the K-8 Science Curriculum and Indigenous Education: A KPR Resource Guide

A Collaboration Between Indigenous Education and Teaching & Learning at KPR



Contents

[Contents](#)

[Purpose - The 2022 Ontario Science Curriculum](#)

[Please Note](#)

[Connections to the Board Action Plan](#)

[Preparing to Teach](#)

[Consider the Art of Teaching](#)

[Consider Assessment](#)

[Consider Indigenous Knowledge Protocols](#)

[Holistic Approaches to Pedagogy](#)

[How to Use Holistic Approaches to Inform Scientific Inquiry](#)

[Guiding Practices & Resource Quick Links](#)

[Kindergarten](#)

[Grade 2](#)

[Grade 3](#)

[Grade 4](#)

[Grade 5](#)

[Grade 6](#)

[Grade 7](#)

[Grade 8](#)

[Featured Resources](#)

[APTN - Power to the People](#)

[Berry Song - by Michaela Goade](#)

[First Nation fights to protect land from mineral extraction](#)

[FNMIÉAO](#)

[I am Indigenous - Autumn Peltier](#)

[Indigenous Education: The National Centre for Collaboration](#)

[Lessons From the Earth and Beyond*](#)

[Maple Moon - Connie Brummel Crook](#)

[Medicines To Help Us - Christi Belcourt](#)

[Natural Curiosity 2nd Edition: A Resource For Educators](#)

[Nibi's Water Song by Sunshine Tenasco and Chief Lady Bird](#)

[Our Relationship and Responsibilities to the Land - Douglas Sinclair](#)

[TVO's Raven's Quest](#)

[TVO Learns - Mining Activities with Douglas Sinclair](#)

[Water is Life: Our Collective Responsibility](#)

["The Water Walker" documentary - Autumn Peltier](#)

[The Water Walker By Joanne Robertson](#)

[We Are Water Protectors by Carole Lindstrom and Michaela Goade](#)

[Where Fires Dance - Alderville Black Oak Savanna](#)

Purpose - The 2022 Ontario Science Curriculum

The new Ontario Science curriculum has integrated specific expectations that are directly related to Indigenous Knowledge. This resource guide has been developed in an effort to support educators in implementing this important and urgent learning.




It is essential that learning activities and resources used to support Indigenous education are authentic and accurate and do not perpetuate culturally and historically inaccurate ideas and understandings. It is important for educators and schools to select resources that represent the uniqueness of First Nations, Métis, and Inuit histories, perspectives, and world views authentically and respectfully. It is also important to select resources that reflect local Indigenous communities as well as First Nations, Métis, and Inuit individuals and communities from across Ontario and Canada. Resources that best support Indigenous education feature Indigenous voices and narratives and are developed by, or in collaboration with, First Nations, Métis, and Inuit communities.

- Ontario Science Curriculum, 2022 p.29

Please Note

This document is organized via two structures for ease of access. First, following each grade's guiding practices, there are a series of *quick links* directly to the resources that have direct connections to those specific grade expectations. The resource section is organized alphabetically by the names of the resource and the curriculum connections for each grade along with the guiding questions and suggested applications are written beside each resource.

Connections to the Board Action Plan

Board Action Plan	Excel in Learning (EL)	Succeed in Life (SL)	Enrich Our Communities (EC)
Strategic Priorities (SP)	<p>SP-EL 1: Establishing a strong foundation for student achievement in literacy and math.</p> <p>SP-EL 2: Supporting student success in differentiated and diverse learning pathways responsive to the unique strengths, skills and needs of all students.</p>	<p>SP-SL 1: Honouring Indigenous knowledge and ways of knowing, engaging in Truth and Reconciliation, and elevating First Nations, Métis and Inuit cultures, perspectives, and histories. <<</p> <p>SP-SL 2: Creating safe, inclusive spaces where belonging, well-being, and mental health support student engagement, and the diversity and lived experiences of students and staff are valued and reflected in learning and working environments.</p> <p>SP-SL 3: Embedding principles of human rights to ensure equity and inclusion for all. <<</p>	<p>SP-EC 1: Building social responsibility, enhancing accountability, service excellence, transparency and evidence-based decision making.</p> <p>SP-EC 2: Strengthening outreach and engagement with students, staff, families, communities and partners, to enrich relationships, amplify diverse voices and develop innovative partnerships.</p>
Guiding Principles	 LEARNING MATTERS We see all students as capable learners while holding high expectations for them.	 BELONGING MATTERS We recognize and value all students as unique thinkers with diverse identities and lived experiences whose positive mental health and well-being is prioritized.	 RELATIONSHIP MATTERS We build trusting and collaborative relationships with students, staff, families and community.
System Actions (SA)	<p>SA-EL 1: Provide evidence-based instruction in literacy and math, informed by ongoing assessment, to tailor differentiated and intensive supports for student success.</p> <p>SA-EL 2: Strengthen educator application of Culturally Relevant and Responsive Pedagogy (CRRP) when designing learning experiences and responding to student learning. <<</p> <p>SA-EL 3: Provide a diverse range of engaging learning opportunities, including community connections, that meet the interests, strengths, needs, and aspirations of students and ensure a successful transition to their chosen postsecondary destinations. <<</p>	<p>SA-SL 1: Engage in learning that explores and values Indigenous knowledge, culture and perspectives to create respectful relationships among students, staff, families, and local Indigenous communities. <<</p> <p>SA-SL 2: Build a culture of accountability where rights and responsibilities are understood and modeled by rights holders and duty bearers. <<</p> <p>SA-SL 3: Sustain and enhance learning environments that are reflective of students' lived experiences and identities. <<</p> <p>SA-SL 4: Create meaningful relationships through identity affirming mental health and well-being centered practices. <<</p>	<p>SA-EC 1: Engage and empower students and community to share their voice and experience in education.</p> <p>SA-EC 2: Deliver open, transparent communication that is reflective and responsive.</p> <p>SA-EC 3: Strengthen environmental consciousness and explore strategies to reduce negative ecological impacts.</p>

DRAFT - JULY 2024

Preparing to Teach

“Reading the **world** always precedes reading the **word**, and reading the **word** implies continually reading the **world**.” Paulo Freire

Through Science we can teach students to read the *words and the world*. As we move through bringing the K-8 Science curriculum to life, aim to select resources that enhance students' understanding of Science and of their own lived experiences.

Consider the Art of Teaching

1. Reflect on the pedagogical practices and choices you will make in the integration of Indigenous Knowledge and pedagogical practices.
2. This resource's intent is not to be a replacement for lesson planning. Educators are encouraged to continue mindfully planning and facilitating learning experiences for their students, and these resources are to help support that planning.
3. Before using a resource, always make sure that it is right for your students and their learning at that time. Some of these resources are not appropriate for younger learners, please read the resource considerations prior to sharing them with students as some have content warnings embedded in them as well.
4. Seek out other resources to support this learning too. Use the [Tool for Evaluating Resources for Anti-Indigenous Bias](#) as a guide when selecting Indigenous-centered resources.
5. The curriculum connections added to this resource guide are the ones that exclusively name Indigenous Knowledge as a criteria. This is by no means an exhaustive list, there are many other connections that can be made to other areas of curriculum through these resources as well. Educators are encouraged to make additional connections to other areas with these resources as well. Intentionally planning cross-curricular learning opportunities is a powerful way to engage learners and support deeper meaning and understanding.
6. As you engage with the Science curriculum and have questions about content, please reach out to the team in Teaching and Learning for support in implementation.

Consider Assessment

1. When [designing learning](#), it is critical that planned experiences are based on clear learning goals and success criteria that reflect the curriculum. With clarity about these dimensions of the [core practices of assessment for learning](#), educators are encouraged to then make decisions about which resources, texts, videos, etc., will support student learning and support consolidation of intended learning. With this approach to intentional planning, educators will avoid the resource trap and prioritize the learning in a way that it is owned by the learner and able to be generalized to new contexts and learning.

Consider Indigenous Knowledge Protocols

1. Review the [KPR Principles of Indigenous Education](#). They are the lens through which we enter into all work in Indigenous Education at KPR.
2. Reflect on the [Holistic Approach to Indigenous Education](#) at KPR. As a system our focus is on the East, Preparing the Soil. The [Essential Considerations for Indigenous Education document](#) will help show ways to empower Indigenous voices.
3. Consider the [Guiding Practices](#) section in this resource guide. It includes notes specific to each grade.
4. Visit the [Passport to reconciliACTION](#) for more connections and resources.
5. If you have any questions or concerns, please contact the [Indigenous Education Department](#).

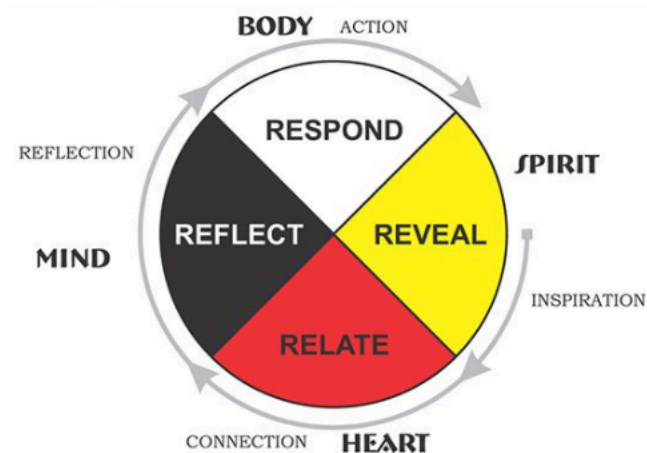
Holistic Approaches to Pedagogy

Embedding Indigenous knowledge, perspectives, culture, and history can include content, approach, or both. One way to think about pedagogy is through the circle, exploring both the pieces and the wholeness of something. When planning a lesson, think about ways to include connections to the land, to lived experiences, to story, and to inquiry and action.

In 2017, the Indigenous Education Department and Teaching & Learning Department worked together to develop a model for learning inspired by Medicine Wheel teachings. This is a model educators can use to inform planning and instruction.

A holistic approach represents the ideal conditions for students to learn Indigenous knowledge, perspective, culture, and history. Here are some things to know about the image on the right:

1. The four domains (Spirit, Heart, Mind, and Body) represent traditional Medicine Wheel teachings. These teachings are led by Indigenous knowledge keepers. A teacher can consider the four domains when planning; however, a teacher is encouraged to connect with the Indigenous Education Department if they want to teach students about these domains.
2. The four nouns (Inspiration, Connection, Reflection, Action) are things that a team at KPR has designed to help educators consider things they can lead students through on a learning journey on any given subject. These are not traditional Medicine Wheel teachings, but used in this way to show the relationship and the cycle of intention when we lead learning.
3. The four verbs (Reveal, Relate, Reflect, Respond) are actions that a team at KPR has designed to help educators consider how skills and knowledge can be brought to life in learning. These are not traditional Medicine Wheel teachings, but used in this way to show how one learning action leads to another action.



How to Use Holistic Approaches to Inform Scientific Inquiry

Holistic approaches can be used to guide your planning and the ways you lead students to learn and/or engage in a task. The K-8 Science Curriculum (2022) emphasizes [cross-curricular and integrated learning](#). Fostering [curiosity and wonder](#) are at the core of learning for all grades. A circle is used to show [the scientific research process](#).

Below is an example of how you might use holistic approaches to guide inquiry. Under each big idea are teacher prompts for each of the three circles. You can explore one circle as a class or all three. Begin with connecting students to their own lived experiences. This invites every student to see themselves in the topic explored. Then you can explore the idea using scientific research and/or Indigenous knowledge. Repetition and working through each of the three circles is an ideal way to engage students in learning.

Grade 3 Curriculum Expectation: Describe various plants used for food, including those grown by First Nations, Métis, and Inuit, and identify local settings where these plants are grown or found.			
Connecting to Lived Experience			
Spirit	Heart	Mind	Body
What is the purpose of plants? What is the life cycle of a plant?	How do you feel when you are near plants? What would our lives be like without plants?	What is required to ensure that plants grow (and what do the plants need from us)? Why do some plants grow and other plants wilt?	What are plant-based foods that are good for your body?
Tips: This is a good opportunity to include cross-curricular approaches and differentiation. Invite students to share their thinking in writing, art, or video. This can be independent learning or whole class discussion.			

Connecting to Scientific Research

Inspiration	Connection	Reflection	Action
<p>What are you most curious about when it comes to using plants as a food source?</p> <p><i>Define the research question. Identify and select resources.</i></p>	<p>Choose one plant that is used as a food source. How is this plant grown in this territory by First Nations, Métis, or Inuit people? (consider what this looked like in the past and today).</p> <p><i>Identify and record information.</i></p>	<p>What have you learned so far about plants as a food source? What do you still need to learn?</p> <p><i>Analyze information and summarize findings.</i></p>	<p>How will you share your learning with others?</p> <p><i>Communicate results.</i></p>

Tip: Wild rice (manoomin) is local to the territory of the Mississauga First Nations. Check out the [Manoomin Curriculum Project](#) from Trent University. We are hoping this resource will be available to KPR teachers in the 2023/24 school year. For other plants local to this territory, explore the [Southern Ontario Métis Traditional Plant Use Study](#) created in partnership with the Métis Nation of Ontario.

Connecting to Indigenous Knowledge

Reveal	Relate	Reflect	Respond
<p>Read the story of The Three Sisters.</p> <p>What does this story reveal about plants used as food and how they are traditionally grown by some First Nations people?</p> <p>After reading this story, what questions do you have?</p>	<p>Explore the methods behind sustainable agricultural practices and the science behind the Three Sisters.</p> <p>For your own references, read (page 107-117) in Braiding Sweetgrass for Young Adults.</p>	<p>Highlight the importance of learning from the land. Make connections to the Land Acknowledgement.</p> <p>Learn more about Indigenous Land-Based Learning.</p>	<p>Ask students what actions they can take to be stewards of the land and ensure that the land is a rich source of food for generations to come. Consider an action for today, for a week from now, a month from now, a year from now, and even seven years from now.</p>

Tip: Use [Strong Stories Kanyen'keha:ka: The Three Sisters](#) By Michelle Corneau. Focus on the science behind the Three Sisters. To learn more about the spiritual and ceremonial components of this planting practice, contact the Indigenous Education department.

Kindergarten

Theme: Seasons and Cycles

1. Spring and summer are times of getting back out onto the land and focusing on developing one's relationship to the land. In the spring there is great significance to maple sap and boiling maple syrup. As plants grow throughout the spring and summer, they are continuously cared for and tended to, ensuring that they are harvested when the fruits and vegetables are ripe.
2. A lot of knowledge is passed onto the next generation. Students may be able to connect to the idea that they are learning to be able to share with people in the future; to keep the cycle of learning going.
3. Being respectful of the fact that the teachings shared in these resources are traditional teachings, we can role model what it means to be an ally. Non-Indigenous students can experience the learning that is shared. It is encouraged that Indigenous people who have the cultural teachings are the ones to share it.

- [Maple Moon - Connie Brummel Crook](#)
- [Indigenous Education: The National Centre for Collaboration](#)

- [Berry Song - by Michaela Goade](#)

Grade 2

Theme: Indigenous Activism in Water Protection

E1.1 → Earth and Space Systems - Air and Water in the Environment

1. When engaging with these activities, invite students to reflect on their own connection to water and the importance of water in their own lives.
2. Avoid a compare and contrast of Indigenous and non-Indigenous views.
3. Avoid adopting Indigenous practices, such as a water walk, without involvement from the Indigenous Education Department. Water holds much cultural significance.

- [I am Indigenous](#) - Autumn Peltier

- [We Are Water Protectors by Carole Lindstorm and](#)

<ul style="list-style-type: none"> • The Water Walker By Joanne Robertson 	<ul style="list-style-type: none"> • Michaela Goade • Nibi's Water Song by Sunshine Tenasco and Chief Lady Bird
<p style="text-align: center;">Grade 3</p> <p style="text-align: center;">Theme: Plants as a Source of Life B2.6, B2.7 → Life Systems - Growth and Changes in Plants</p>	
<ol style="list-style-type: none"> 1. When talking about agricultural practice, integrating sustainability is fundamental to Indigenous Education. Educators might explore the process of plant growth and the interconnectedness of all components of sustainable farming. 2. Making connections to the Honourable Harvest would be a good big idea to explore. Here is a short video featuring Robin Wall Kimmerer introducing the idea. Work with students to learn the names and qualities of plants as this is the first step in developing a relationship. 3. Review the example for using Holistic Approaches to Inquiry in Grade 3. 4. Remember that cultural practices begin with relationship to community, and must be led by Indigenous people. Always check with the Indigenous Education Department for guidance on this. 	
<ul style="list-style-type: none"> • FNMIEAO - (username: KPRDSB password: kpr2020) • Indigenous Education: The National Centre for Collaboration • Medicines To Help Us - Christi Belcourt 	<ul style="list-style-type: none"> • Berry Song - by Michaela Goade • TVO's Raven's Quest • Maple Moon - Connie Brummel Crook
<p style="text-align: center;">Grade 4</p> <p style="text-align: center;">Theme: Reciprocity and Relationship with the Land E2.6 → Earth and Space Systems - Rocks, Minerals, and Geological Processes</p>	
<ol style="list-style-type: none"> 1. The land is central to Indigenous knowledge, perspective, history, and culture. 2. Consider connections to Treaties and the Land Acknowledgment. 3. Avoid a compare and contrast of Indigenous and non-Indigenous views (example: presenting an Indigenous point of view in a debate about pipelines). Instead, engage with the material provided as a way to highlight authentic Indigenous voices when considering resource extraction. 4. Remember that cultural practices begin with relationship to community, and must be led by Indigenous people. Always 	

check with the Indigenous Education Department for guidance on this.	
<ul style="list-style-type: none"> • FNMIEAO - (username:KPRDSB password:kpr2020) • TVO Learns - Mining Activities with Douglas Sinclair 	<ul style="list-style-type: none"> • Lessons From the Earth and Beyond • First Nation fights to protect land from mineral extraction
<p style="text-align: center;">Grade 5</p> <p style="text-align: center;">Theme: Sustainability and Taking Care of The Land E1.3 → Earth and Space Systems - Conservation of Energy and Resources</p>	
<ol style="list-style-type: none"> 1. The land is central to Indigenous knowledge, perspective, history, and culture. 2. Consider connections to Treaties and the Land Acknowledgment. 3. Remember that cultural practices begin with relationship to community, and must be led by Indigenous people. Always check with the Indigenous Education Department for guidance on this. 4. Avoid a compare and contrast of Indigenous and non-Indigenous views (example: presenting an Indigenous point of view in a debate about resource extraction). Instead, engage with the material provided as a way to highlight authentic Indigenous voices when considering resource extraction. 	
<ul style="list-style-type: none"> • Indigenous Education: The National Centre for Collaboration 	<ul style="list-style-type: none"> • Lessons From the Earth and Beyond • Where Fires Dance - Alderville Black Oak Savanna
<p style="text-align: center;">Grade 6</p> <p style="text-align: center;">Theme: Sustainable Harvest and rights to access to Resources C1.1 → Matter and Energy - Electrical Phenomena, Energy, and Devices B2.8 → Life Systems - Biodiversity</p>	
<ol style="list-style-type: none"> 1. The land is central to Indigenous knowledge, perspective, history, and culture. 2. Consider connections to Treaties and the Land Acknowledgment. 3. Avoid a compare and contrast of Indigenous and non-Indigenous views (example: presenting an Indigenous point of view in a debate about pipelines). Instead, engage with the material provided as a way to highlight authentic Indigenous voices when considering resource extraction. 4. Remember that cultural practices begin with relationship to community, and must be led by Indigenous people. Always check with the Indigenous Education Department for guidance on this. 	

<ul style="list-style-type: none">• Our Relationship and Responsibilities to the Land• Where Fires Dance - Alderville Black Oak Savanna		<ul style="list-style-type: none">• FNMIEAO - (username:KPRDSB password:kpr2020)• APTN - Power to the People	
<div>Grade 7</div> <div>Theme: Sustainable harvest and only taking what we need</div> <div>B1.3 → Life Systems – Interactions in the Environment</div> <div>Guiding Practices & Resource Quick LinksFeatured Resources</div>			
APTN - Power to the People	<div>1. The land is central to Indigenous knowledge, perspective, history, and culture.</div> <div>2. Consider connections to Treaties and the Land Acknowledgment.</div> <div>3. Avoid a compare and contrast of Indigenous and non-Indigenous views (example: presenting an Indigenous point of view in a debate about pipelines). Instead, engage with the material provided as a way to highlight authentic Indigenous voices when considering resource extraction.</div>		
	<div>4. Remember that cultural practices begin with relationship to community, and must be led by Indigenous people. Always check with the Indigenous Education Department for guidance on this.</div>		
Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge	
6	<ul style="list-style-type: none">• FNMIEAO (username:KPRDSB password:kpr2020)• Lessons From the Earth and Beyond	<div>1. Reveal: Explore First Nations, Métis, and Inuit communities across Canada that utilize forms of renewable energy. After watching a video: what is the type of renewable energy that the community is utilizing?</div> <div>2. Relate: What are the long term impacts of using that specific source of energy</div>	<div>Indigenous Education: The National Centre for Collaboration</div>
	<div>impacts on First Nations, Métis, and Inuit communities, and on climate change</div> <div>Theme: Indigenous Activism in Water Protection</div> <div>C1.2 → Matter and Energy, Fluids</div> <div>E1.3 → Earth and Space Systems, Water Systems</div>	<div>on the First Nation, Métis, or Inuit community featured in the film? What are the short term impacts of using that specific source of energy?</div> <div>3. Reflect: What different choices could be made to lessen the impact on First Nations, Métis, and Inuit communities?</div> <div>4. Respond: How will you share your learning about First Nations, Métis, and Inuit communities and energy?</div>	
	<div>1. The land is central to Indigenous knowledge, perspective, history, and culture.</div> <div>2. Consider connections to Treaties and the Land Acknowledgment.</div> <div>3. Avoid a compare and contrast of Indigenous and non-Indigenous views (example: presenting an Indigenous point of view in a debate about water systems). Instead, engage with the material provided as a way to highlight authentic Indigenous voices when considering resource extraction.</div> <div>4. Remember that cultural practices begin with relationship to community, and must be led by Indigenous people. Always check with the Indigenous Education Department for guidance on this.</div>	<div>Extensions: Finding Balance through Nuclear: Q&A with Emily Whetung of Curve Lake First Nation: Focus on the importance of "balance" when it comes to leveraging technologies. Why are Indigenous perspectives so important in the conversation surrounding nuclear energy? Emily Whetung discusses the importance of balance and how many other "renewable" resources have undiscussed long term impacts as well.</div> <div>Read more about Radioactive Waste and Indigenous Consent.</div>	
	<ul style="list-style-type: none">• FNMIEAO - (username:KPRDSB password:kpr2020)• Water is Life: Our Collective Responsibility	<ul style="list-style-type: none">• We Are Water Protectors by Carole Lindstorm and Michaela Goade	

Berry Song - by Michaela Goade

An [engaging picture book](#) for all ages. [Click here for a read aloud video.](#)



Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge
JK/SK	<p>Frame: Belonging and Contributing</p> <ul style="list-style-type: none"> - <i>Laying the foundations for citizenship and environmental stewardship</i> 	<ol style="list-style-type: none"> 1. Reveal: Learning from Grandmothers is important in Indigenous communities. What does it mean when Grandma says “we take care of the land”? What does that look like? 2. Relate: Gratitude is a key concept in Indigenous worldview. What does it look like to show gratitude for the berries and the land? What does gratitude mean? 3. Reflect: Learning through songs is part of culture in many Indigenous cultures. Who is teaching the berry song in this story? Why is it important to learn this song? 4. Respond: One of the ways many teach and learn within different Indigenous communities is with family. How will you share what you learned about berries with your family?
3	<p>B2.7 describe various plants used for food, including those grown by First Nations, Métis, and Inuit, and identify local settings where these plants are grown or found</p> <p>B2.6 describe ways in which people, including Indigenous peoples, from various cultures around the world use plants for food, shelter, medicine, and clothing</p>	<ol style="list-style-type: none"> 1. Reveal: Since time immemorial, Indigenous Nations have been using plants as a food source. What do you know about berries as a food source? 2. Relate: Many people in Indigenous communities see plants as a teacher. How does the story expand your understanding of berries as a food source? What questions does it inspire? 3. Reflect: In Indigenous ways of knowing and being, it is important to learn from community. Where can you go to learn more about berries? Who can help you with this knowledge? 4. Respond: Part of being a Treaty person (which we all are) is helping to care for the land. What actions can you take to ensure that berries continue to be a sustainable food source in the future?

First Nation fights to protect land from mineral extraction



First Nation fights to protect land from mineral mining

Neskantaga First Nation in northern Ontario's Ring of Fire is fighting to be properly consulted before development begins to start mining for minerals used in many green initiatives, such as batteries for electric vehicles. Members of the First Nation are worried about mining's impact on their traditional lands.

Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge
4	E2.6 demonstrate an understanding of First Nations, Métis, and Inuit geological knowledges that are used in the selection of different rocks and minerals for specific purposes	<ol style="list-style-type: none"> 1. Reveal: Our Stories: Petroglyphs Park Listen to DJ Fife from Curve Lake First Nation discuss the importance of the Petroglyphs found at what is now Petroglyphs Park. 2. Relate: Read about the Teaching Rocks at the Petroglyphs. How are rocks an important cultural element in Indigenous communities, specifically, in this region? 3. Reflect: Read the short excerpt here from Nipin and the Rocks. Reflect on Mosom's words "These rocks are gifts from the universe, and only when they are in their rightful spot do they reveal their power. Do not be fooled, these are not my rocks, but all of ours. I am only the storyteller, the stones tell me the stories that I then relate to you." What does Mosom mean when he says "these are not my rocks but all of ours"? How is this an important insight into how Indigenous people view rocks and minerals? 4. Respond: To bring together what you've learned about Indigenous perspectives on rocks and minerals, watch the above video about mining in Neskantaga First Nation territory. Respond to what you've learned by sharing three big ideas from the video.

FNMIEAO

First Nations, Métis, and Inuit Education Association of Ontario
(username:KPRDSB password:kpr2020)



Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge
3	<p>B2.7 describe various plants used for food, including those grown by First Nations, Métis, and Inuit, and identify local settings where these plants are grown or found</p> <p>B2.6 describe ways in which people, including Indigenous peoples, from various cultures around the world use plants for food, shelter, medicine, and clothing</p>	<p>FNMIEAO - Sustainability and Reciprocity</p> <ol style="list-style-type: none"> 1. Reveal: Many First Nation, Métis, and Inuit communities consider every plant to be a gift. Each school yard has many plants. Using Activity One (page 9), invite students to explore the plants in the school yard. Ask students to name them and note whether they are a food source. 2. Relate: Ask students to choose one plant. Design a SuperHero Plant Trading Card. 3. Reflect: Read The Origins of Sickness and How the Chipmunk Got Its Stripes as told by Isaac Murdoch (page 4). In addition to being a food source, how are plants also medicine? 4. Respond: What have you learned about sustainability and reciprocity by getting to know plants? How can you give back to the plants?
6	<p>B2.8 describe the importance of biodiversity in supporting agriculture, including Indigenous agriculture around the world</p>	<p>FNMIEAO - Relationships with the Land</p> <ol style="list-style-type: none"> 1. Reveal: In the territory of the Mississauga First Nations, wild rice (manoomin) is important. Go to page 12 and read the article Cottage country conflict over wild rice leads to years of rising tensions. There are two opposing views about wild rice. What does this story reveal about biodiversity and agriculture? What questions do you still have? 2. Relate: Watch a video about Wild Rice Harvest on the Kawartha Lakes. In list form, write out the steps for harvesting wild rice. What do you notice in the video about how they harvest together, in community? How can agriculture bring communities together? 3. Reflect: Why are there groups working to protect wild rice (manoomin)? Read more about Black Duck Wild Rice. What do you learn from them about the urgency and importance of protecting wild rice?

		<p>4. Respond: Write a letter to Community Voices For Manoomin to share your learning about wild rice, and share your support for its protection.</p>
7	B1.3 analyze how diverse First Nations, Métis, and Inuit practices and perspectives contribute to environmental sustainability	<p>Dish with One Spoon Treaty (video)</p> <ol style="list-style-type: none"> 1. Reveal: Everyone has a responsibility to care for the land. After watching the video, make a list of the responsibilities you have to care for the land, the animals, and the water. What is the responsibility of the community? What is your individual responsibility? 2. Relate: Consider what you can learn from this treaty. What are the differences between a rights based agenda and a respect & responsibility based relationship when it comes to caring for the land? 3. Reflect: How might you connect environmental sustainability to the idea of responsibility? 4. Respond: What actions can you take as members of this environment and world to live with respect and with responsibility?
8	C1.2 assess the environmental and social impacts of fluid spills, including impacts on First Nations, Métis, and Inuit communities, and including the cost and technical challenges related to cleanup and remediation efforts	<p>FNMIEAO - Relationships with the Land</p> <ol style="list-style-type: none"> 1. Reveal: Review this story about Lancaster Sound. “The World Wildlife Fund (WWF) successfully prevented Shell Oil from continuing to operate trade routes through a sensitive portion of Nunavut called Lancaster Sound.” 2. Relate: Relate the events at Lancaster Sound with local issues pertaining to toxic spills. What have you found? 3. Reflect: What would have been the environmental and social impacts for Lancaster Sound had Shell Oil continued to operate trade routes? 4. Respond: Learn about toxic spills and their impact on Indigenous communities in Ontario. How will you respond with action to what you have learned?

I am Indigenous - Autumn Peltier



In this video, twelve year old Autumn Peltier explains the unique relationship between women, as givers of life, and the importance water plays in sustaining all life.

Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge
8	E1.2 demonstrate an understanding of First Nations, Métis, and Inuit knowledges and values about water, connections to water, and ways of managing water resources sustainably	<ol style="list-style-type: none">1. Reveal: Watch Autumn Peltier speak at the United Nations. What does she reveal about why she values water and why the water is sacred? Share with a classmate something new that has been revealed to you in Autumn's words.2. Relate: When Autumn was in Grade 7, she began taking action to raise awareness about the issues with water pollution to help First Nation communities. What can you do? How can you help? What actions are you going to take?3. Reflect: "Why so many? And why have they gone without water for so long?" How would you answer Autumn's questions?4. Respond: What are all the ways that water moves through your life? How is water vital in your life? Learn about the Magpie River's Legal Personhood. How would legal personhood affect the way in which we interact with waterways? <p>Extension: Check out the Passport to ReconciliACTION resources on Water.</p>

Indigenous Education: The National Centre for Collaboration



This is a website rich with resources (including many local connections too).

Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge
JK/SK	Frame: Belonging and Contributing	Maple Syrup and the Seasons

	Laying the foundations for citizenship and environmental stewardship	<ol style="list-style-type: none"> 1. Reveal: Watch this video where Caleb Musgrave shares: Gathering maple sugar the traditional Anishinaabe way. Use the prompts in Activity 1 of Maple Syrup and the Seasons to reveal what you know and what you need to learn. Then watch Ziiwaagmide Ngamowin - Maple Syrup Song. What do you notice? 2. Relate: Many people in First Nations, Métis, and Inuit communities see the trees as one of their relations. How can caring for trees be like caring for friends? (Use the prompts in Activity 2). 3. Reflect: What do maple trees look like in different seasons? How do seasons and cycles affect what the tree looks like? (Use the prompts in Activity 3). 4. Respond: Find a tree in the school yard. Visit it each week and note how it changes through the seasons. Develop a relationship with the tree. You may even want to give it a name.
3	B2.6 describe ways in which people, including Indigenous peoples, from various cultures around the world use plants for food, shelter, medicine, and clothing	<p>Food Resources in Nunatsiavut, Labrador</p> <ol style="list-style-type: none"> 1. Reveal: Using the prompts from the Activation, provide time for students to share their experiences and relationship with foods. Do they have opportunities to consume locally sourced foods? 2. Relate: Consuming locally sourced foods can pose a challenge during the changing seasons. Noticing and naming the differences in the food resources shown in the two documents (Winter/Spring & Summer/Fall) think about how your diet changes depending on the season. What are the factors that influence changes in diets from season to season? 3. Reflect: Notice that in the Summer/Fall seasons people in Nunatsiavut, Labrador have a diet rich in greens and berries. Notice the foods that have been processed, how are they processed? Why do you think this technique was used? Where might we find fresh berries outside of a supermarket right now? How might we process these berries so they are available throughout the seasons? 4. Respond: Thinking about the foods that are available in our community and in nature during this season, what meal may we be able to prepare with this food? Consider going for a walk outside and notice the foods available immediately. Depending on the season, this activity may look very different.
5	E1.3 analyze how First Nations, Métis, and Inuit communities use their	<p>Measuring Sweet Water and Maple Syrup</p> <p>This is a wonderful opportunity for students to learn about this territory.</p>

	<p>knowledges and ways of knowing to conserve energy and resources</p>	<ol style="list-style-type: none"> 1. Reveal: Watch the video The Stories with Elder Doug Williams from Curve Lake First Nation. What does he share about how knowledge about sap was shared from generation to the next? 2. Relate: In the next video about The Sugar Bush, Barbara Wall shares that maple sap is the first gift the Creator gives and that it strengthens the connection with the land. Why is caring for the maple tree and the sap important for sovereignty and caring for the land? What type of a resource is a maple tree? 3. Reflect: In the third video about Language and the Sugar Bush, Elder Doug Williams speaks to the diverse uses of sweet water and shares some language. Why is language important to Indigenous ways of knowing? The Language Passport to ReconciliACTION will help your learning here. 4. Respond: Go on a community walk and look for maple trees. Make a map, noting where you find them. Return and check in on them during different seasons. Watch the 4th video about Maple Trees to learn more. What questions do you still have?
7	<p>B1.3 analyze how diverse First Nations, Métis, and Inuit practices and perspectives contribute to environmental sustainability</p>	<p>Ratios of Maple Syrup and Sweet Water</p> <ol style="list-style-type: none"> 1. Reveal: Watch video 5 on Maple Sugar. Elder Doug Williams shares how maple sugar is made today. What do you learn about how this community has made maple sugar over time? How do these practices contribute to environmental sustainability? 2. Relate: Do some research on the Honourable Harvest, from Robin Wall Kimmerer's Braiding Sweetgrass for Young Adults (this is an excellent resource for all schools). What connections are there between the big ideas of the Honourable Harvest and how maple sugar is made in First Nation communities? 3. Reflect: What is the impact of climate change on the sustainability of maple forests? 4. Respond: How can you help to preserve maple forests? What is your role in reducing the impacts of climate change?

Lessons From the Earth and Beyond*

*When using lessons from this resource, keep in mind that they were created by and for educators in the Catholic education system. Always pre-view the videos and lesson plans and edit/carefully to make selections that are appropriate for public education.



Grade	Science Curriculum Connection	Teacher Prompts to Connect to Indigenous Knowledge
5	E1.3 analyze how First Nations, Métis, and Inuit communities use their knowledges and ways of knowing to conserve energy and resources	<ol style="list-style-type: none">1. Reveal: After watching the Fisher story video and the video introducing the concept of love, think/pair/share about how you show love to the Earth and natural world.2. Relate: Thinking about the needs of the Earth and how we humans use the resources provided by the earth, make a connection to a natural resource that is often taken for granted. Where have we created our own path and what impacts do you believe that has had on our relationship with the earth?3. Reflect: Reflect on the four questions posed in the poem by Chief Dan George, which of these three areas could you be more mindful about conserving? (air, water, wildlife)4. Respond: After having selected either air, water, or wildlife, apply the learning from the Fisher Story and the video about Love and map out an action plan for you and your home to be more mindful of how you interact with this important part of the Earth. <p>Video: Redefining Success (it's the third video in this list)</p> <p>Lesson on Love from Lessons from the Earth and Beyond Video Introducing Zaagi'idiwin Fisher Story Video</p> <p>Please note: When working through this material the Lesson on Love shares a cultural connection to the 7 Sacred Teachings. These Teachings are deeply connected to generational teaching experiences and lifelong learning. Love is a universal concept</p>

		and when engaging with this learning, it is suggested to move forward with that lens instead of one rooted in the 7 Sacred Teachings. Showing love for yourself, for others and the land on which you are on is an accessible entry point to the learning with all of this material for every student.
7	B1.3 analyze how diverse First Nations, Métis, and Inuit practices and perspectives contribute to environmental sustainability	<ol style="list-style-type: none"> 1. Reveal: Issac Murdoch starts the story by sharing that the Land and the Earth have requirements. These requirements are important to understand in order to keep the Earth healthy and live in harmony with the Land. Predict and connect, what are some of the requirements that the Earth needs from us to stay healthy? 2. Relate: When Issac mentions in the story “Don’t make your own trails, follow the ones created by the animals.” How might such a simple practice contribute to environmental sustainability? 3. Reflect: How can we demonstrate caring and compassion to one another, to the natural environment, including the animals, the earth, the sky, water, and plants? 4. Respond: What part of this story had the biggest impact on the way you see the Earth? Which part of the lesson will you mindfully take away to lower your impact on the environment? <p>Fisher Story Video ZHAWENJIGE - Walking With A Good Heart Lesson</p> <p>Please note: Be mindful of the Catholic education connections made throughout this resource and reframe them (or skip if needed) for a public school setting.</p>

[Maple Moon - Connie Brummel Crook](#)

TRACKS - Winter Storytelling



TRACKS (Trent Aboriginal Cultural Knowledge and Science) is an educational program based on Michi Saagiig Anishnaabeg territory. Hosted by Trent University within the Indigenous Environmental Studies and Sciences Program (IESS), and operated in partnership with founding partner organization Kawartha World

Issues Centre and the First Peoples House of Learning, TRACKS consists of two distinct and connected programs: **Education** and **Oshkwazin Indigenous Youth Leadership**.

Grade	Science Curriculum Connection	Teacher Prompts
JK/SK	Frame: Belonging and Contributing - <i>Laying the foundations for citizenship and environmental stewardship</i>	<ol style="list-style-type: none"> 1. Reveal: What do you know about maple trees? (ask before reading) 2. Relate: Think of a time where you enjoyed maple syrup, what did you feel? What do you remember? Where were you? (this question is designed to support students to build relationality between themselves and maple trees and syrup) 3. Reflect: How is the sun important in this story? How is the squirrel important in this story? What is the difference between sweet water and maple syrup? 4. Respond: What would you like to learn more about maple syrup? What would you like to learn more about spring? <p>Maple Moon https://goodminds.com/products/maple-moon ▶ TRACKS Winter Storytelling Series: Maple Moon</p>
3	B2.6 describe ways in which people, including Indigenous peoples, from various cultures around the world use plants for food, shelter, medicine, and clothing	<ol style="list-style-type: none"> 1. Reveal: (pre-reading) What do you know about maple trees? How are maple trees important to Indigenous people? How are they important in a habitat? 2. Relate: Think of a time where you enjoyed maple syrup, what did you feel? What do you remember? Where were you? (this question is designed to support students to build relationality between themselves and maple trees and syrup) 3. Reflect: How is the sun important in this story? How is the squirrel important in this story? What is the difference between sweet water and maple syrup? 4. Respond: What would you like to learn more about maple syrup?

Medicines To Help Us - Christi Belcourt

Schools were all sent this resource in the fall.



Grade	Science Curriculum Connection	Teacher Prompts
3	<p>B2.7 describe various plants used for food, including those grown by First Nations, Métis, and Inuit, and identify local settings where these plants are grown or found</p> <p>B2.6 describe ways in which people, including Indigenous peoples, from various cultures around the world use plants for food, shelter, medicine, and clothing</p>	<ol style="list-style-type: none"> 1. Reveal: Are any of these plants familiar to you? How did you learn about them? 2. Relate: Think of a plant that is important to you. Explain its importance 3. Reflect: Many of these plants have been used since time immemorial by Indigenous peoples on Turtle Island. On the sheet about American Ginseng, it tells us that this plant is now considered endangered. Is there a type of plant that you use everyday to help you? What would happen if this plant was suddenly not available for you? How would this change your life? 4. Respond: Part of being a Treaty person (which we all are) is helping to care for the land. How will you help care for the Land? Brainstorm a list of things you can do as a class, and make them happen! <p>Extension: ETFO Indigenous Land-Based Learning Resource</p>

Natural Curiosity 2nd Edition: A Resource For Educators (JK-6, with connections to Intermediate)

This is both a book and a website! Both are excellent, and work in tandem with each other.

We love this book, and here's why:

1. Inquiry-based! Student engagement is always high with inquiry-based learning in science!
2. Practical and accessible examples from actual classroom teachers, with reflections and supports
3. Allyship without saviourism
4. Ontario Curriculum-based

[Nibi's Water Song](#) by Sunshine Tenasco and Chief Lady Bird

Grade	Science Curriculum Connection	Teacher Prompts
2	E1.1 assess the impact of human activities on air and water, taking various perspectives into consideration, including those of First Nations, Métis, and Inuit, and plan a course of action to protect the quality of the air and/or water in the local community	<ol style="list-style-type: none"> 1. Reveal: Think about all the water you use in a day. What is the importance of clean water in your community? 2. Relate: in Nibi's Water Song, Nibi travels from door to door asking for water to quench her thirst. Where do you go to find water to drink? 3. Reflect: Everyone needs access to clean drinking water. In some communities it can be more difficult to access. How are people in non-Indigenous communities advocating and working to help make things right for everyone? What can you do? 4. Respond: How can we spread the message to open the big shiny house doors to ensure clean drinking water for all people? <p>Author Reading and Teaching: https://www.youtube.com/watch?v=H0I30e43nUQ In the first 21 minutes of the video, author Sunshine Tenasco reads the story, discusses the motivation for writing the story, then rereads the story. The segment concludes with a writing activity.</p> <ul style="list-style-type: none"> - The first 20 minutes: Reading of the story, rereading with description from the author and a call to action: write the Prime Minister a letter. <p>*Note PLEASE READ: This video is an incredible resource, spotlighting the author, her motivation, personal experience, the intentional symbolism embedded in the book, and great teaching opportunities.</p> <p>One note of content warning -starting at 21 minutes, the Author discusses the discovery of unmarked graves and bones at Residential Schools and once again at minute 37. Educators are advised to watch this video <i>in full</i> before showing it to their</p>

		<p>classroom to assure it is appropriate for the age and stage of their students. Educators are suggested to stop the video before the 21 minute mark if they are using this in a primary classroom setting.</p>
8	<p>C1.2 assess the environmental and social impacts of fluid spills, including impacts on First Nations, Métis, and Inuit communities, and including the cost and technical challenges related to cleanup and remediation efforts</p> <p>E1.2 demonstrate an understanding of First Nations, Métis, and Inuit knowledges and values about water, connections to water, and ways of managing water resources sustainably</p>	<ol style="list-style-type: none"> 1. Reveal: In Nibi’s Water Song, there is an illustration that says “Water is Life”. Bring this image by Christi Belcourt to the classroom, and ask them to share what they see and notice about the illustration. How do they interpret the message of “Water is Life”? 2. Relate: Have you ever had an experience with untreated/dirty water? Where in your community or in your home does water get treated and processed for drinking? 3. Reflect: How might we be more sustainable in our relationship with water? Where do you think the majority of the water you use ends up? 4. Respond: Nibi stands up for her rights to access clean drinking water. By singing the water song, the people in the big shiny houses started listening and opening their doors. How might we open our doors and take action? <p>Author Reading and Teaching: https://www.youtube.com/watch?v=H0I30e43nU0 In the first 21 minutes of the video, author Sunshine Tenasco reads the story, discusses the motivation for writing the story, then rereads the story. The segment concludes with a writing activity.</p> <ul style="list-style-type: none"> - The first 20 minutes: Reading of the story, rereading with description from the author and a call to action: write the Prime Minister a letter. <p>*Note PLEASE READ: This video is an incredible resource, spotlighting the author, her motivation, personal experience, the intentional symbolism embedded in the book, and great teaching opportunities. One note of content warning -starting at 21 minutes, the Author discusses the discovery of unmarked graves and bones at Residential Schools and once again at minute 37. Educators are advised to watch this video <i>in full</i> before showing it to their classroom to assure it is appropriate for the age and stage of their students. Educators are suggested to stop the video before the 21 minute mark if they are using this in a primary classroom setting.</p>

Our Relationship and Responsibilities to the Land - Douglas Sinclair



Grade	Science Curriculum Connection	Teacher Prompts
6	B2.8 describe the importance of biodiversity in supporting agriculture, including Indigenous agriculture around the world	<ol style="list-style-type: none"> 1. Reveal: Douglas Sinclair asks “Where do you come from?” - Ask students to think about where they live, play, and learn. Where do they come from? What does that mean to them? 2. Relate: What could happen if communities harvested an entire population of fish or rice? How would that impact the balance and biodiversity of the land? 3. Reflect: Douglas mentioned cutting down all the redwood trees in a forest. What impact would removing an entire population from an ecosystem result in? 4. Respond: What actions can we take to help sustain biodiversity in our community? <p>This video talks about relationship, responsibility, and connections to food systems, relationships between sustainable harvest and biodiversity.</p>
7	B1.3 analyze how diverse First Nations, Métis, and Inuit practices and perspectives contribute to environmental sustainability	<ol style="list-style-type: none"> 1. Reveal: Douglas Sinclair asks “Where do you come from?” What does that mean? What does it mean to be a guest on this territory? How does where we come from relate to the Land Acknowledgement? 2. Relate: Douglas Sinclair says “we are just left to protect this.” First Nation communities have cared for the land since time immemorial. What do you learn from him about why this is important? 3. Reflect: Douglas Sinclair shares how the whole community was involved in harvest time. Why is the role of Elders important to the practice of environmental sustainability? 4. Respond: What steps can you take to uphold the value of “only take what you need?”

TVO's Raven's Quest



Grade	Science Curriculum Connection	Teacher Prompts
3	B2.7 describe various plants used for food, including those grown by First Nations, Métis, and Inuit, and identify local settings where these plants are grown or found	<p>Enter Hope's community in Wikwemikong, Ontario where she shares her relationship with the Three Sisters. In this video we see Hope harvest in her garden and enter her squash into the local fair. Then, we learn about braiding corn stalks and drying seeds for the next season. This short video is not exclusively about food and plants and educators can skip from 2:50 to 5:30 to isolate the conversation around food.</p> <p>https://www.tvokids.com/school-age/ravens-quest/videos/hope</p> <p><i>Please note:</i> in this video Hope and her friends engage in crafting activities. Educators are encouraged to avoid crafts as content (dream catchers, totem poles, etc) as this can cause harm.</p> <ol style="list-style-type: none"> 1. Reveal: Have you ever cared for a plant? Worked in a garden? How did you feel when you were building relationship with that plant, or that garden? 2. Relate: Where in your community can we find freshly grown vegetables? 3. Reflect: Hope's garden has three main plants in it. What are these plants and how do you think they "help each other grow like sisters"? 4. Respond: What have you learned about Hope's garden? What do you want to learn more about when it comes to traditional Indigenous foods and plants?
	B2.6 describe ways in which people, including Indigenous peoples, from	<p>Enter Marissa's community in Curve Lake, Ontario where she shares how to harvest wild rice. Later on in the video, Marissa and her friend cook with wild rice. This short video is not exclusively about wild rice, and educators can skip from 1:38 to 4:30 where she begins the</p>

	various cultures around the world use plants for food, shelter, medicine, and clothing	<p>process of roasting, winnowing, and preparing the wild rice.</p> <p>https://www.tvokids.com/school-age/ravens-quest/videos/marissa</p> <ol style="list-style-type: none"> 1. Reveal: What is your favourite plant? Why do you love this plant? Why is it important to you? 2. Relate: In this territory, the territory of the Mississauga First Nations, wild rice (manoomin) is important. Marissa shows us how manoomin is harvested, roasted, and winnowed. Think of a time where you prepared food with loved ones, what made that experience memorable? 3. Reflect: Marissa prepared the manoomin with many members of her community. Where in your local community do people work together to prepare or provide foods? 4. Respond: One of the ways many teach and learn within different Indigenous communities is with family. How will you share what you learned about wild rice with your family? How could we support Indigenous food sovereignty initiatives?
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TVO Learns - [Mining Activities with Douglas Sinclair](#)



Grade	Science Curriculum Connection	Teacher Prompts
4	E2.6 demonstrate an understanding of First Nations, Métis, and Inuit geological knowledges that are used in the selection of different rocks and minerals for specific purposes	<ol style="list-style-type: none"> 1. Reveal: Where in your life do you use rocks and minerals? 2. Relate: Take a moment and research where some of the minerals you use everyday are sourced. (Nickel in cans, gold in jewelry, metal in technology → educators are encouraged to do a whole class inquiry to discover the sources). 3. Reflect: In the video, Douglas Sinclair shares the responsibility we have to the land. What does he say is our responsibility? Think about how mining the land for minerals does not fulfill that responsibility, and share your thinking.

		<p>4. Respond: What action can we take to help minimize the need to mine resources? What action plan can be put in place to support this goal? (effective recycling, reusable tools, using things until they are no longer repairable, etc.)</p> <p>Moving through the whole lesson on TVOLearns provides a valuable conversation and learning around sustainable practice and the mining industry. Note: The Indigenous Knowledge section in the Action section has a video by Douglas Sinclair. Educators may choose to use the “Think” section to encourage discussion.</p>
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Water is Life: Our Collective Responsibility

Grade	Science Curriculum Connection	Teacher Prompts
8	E1.2 demonstrate an understanding of First Nations, Métis, and Inuit knowledges and values about water, connections to water, and ways of managing water resources sustainably	<p>Video #2 - Our Connection to Water by Sandra Indian</p> <ol style="list-style-type: none"> 1. Reveal: What bodies of water are around you and your home? How do you interact with these bodies of water? 2. Relate: When Sandra Indian speaks about the importance of water, and how water is sacred, she is speaking about the relationship Indigenous people have with Water. What is your relationship with Water? 3. Reflect: Reflect upon how bodies of water have been polluted in the last 200 years. What are ways to restore the relationship with water? 4. Respond: How might we take better care of the water? What can we do everyday to help keep water clean and available for generations to come?

“[The Water Walker](#)” documentary - Autumn Peltier



Grade	Science Curriculum Connection	Teacher Prompts
8	E1.2 demonstrate an understanding of First Nations, Métis, and Inuit knowledges and values about water, connections to water, and ways of managing water resources sustainably	<ol style="list-style-type: none"> 1) Reveal: Share your understanding about what Autumn means when she talks about the spirit of water. 2) Relate: Relate Autumn’s actions to protect the water to your own values around the Land and Waters. Why is it important that Autumn is working to protect the water? 3) Reflect: Think about how you interact with water everyday. Why is it important that Autumn is finding ways to protect the water and the Earth? How might you protect the water that you interact with on a daily basis? 4) Respond: In the end of the documentary Autumn shares a call to action, what do you think she is asking the audience to do? What do you think we can do to take action to protect the water for the next generations? <p>*Content warning, at about 16 minutes, Autumn shares a moment when she was bullied for her beliefs. Please preview this documentary prior to showing it to your classroom to ensure the content is appropriate for your students.</p> <p>This video begins with a long introduction from the host of the screening. Educators are encouraged to view this prelude for their own learning, but can skip it with their classroom. The documentary is followed up with a speech and interview with Autumn by the host of the screening. Educators are again asked to preview this content to assure it’s right for their students.</p> <p>Canada has an abundant water supply, but according to a news report from Human Rights Watch, many Indigenous communities in Ontario do not safe water to drink. The water, upon which depends the sustenance of many Indigenous communities living on lands known as reserves, is contaminated, not easily accessible, and</p>

potentially dangerous because of faulty water treatment systems. The federal and provincial governments need to take urgent steps to address their role in this crucial crisis.



The Water Walker By Joanne Robertson

Grade	Science Curriculum Connection	Teacher Prompts
2	E1.1 assess the impact of human activities on air and water, taking various perspectives into consideration, including those of First Nations, Métis, and Inuit, and plan a course of action to protect the quality of the air and/or water in the local community	<ol style="list-style-type: none"> 1) Reveal: What is your best memory of water? Where were you? What were you doing? 2) Relate: Using a map of the world, compare land and water masses; salt and freshwater bodies. Then zoom in on North America, Turtle Island, and do the same. What do you notice about cities and water masses? Finally, zoom in to identify nearby bodies of water. Use a map of North America that shows the outline like a turtle. Where are we on the map? Where is the closest water source to our place? 3) Reflect: How is Nokomis called to action? We all need help, who does Nokomis go to for help, and what do they do? Who do you go to for help? Who can the water go to for help? 4) Respond: How might we take better care of the water? What can we do every day to help keep water clean and available for generations to come? <p>Exploring the learning: http://static1.squarespace.com/static/5783b41337c581c34c808812/t/5bd1dce99140b788ed6774a3/1540480234156/The+Water+Walker+Teaching+Guide.pdf</p> <p>Look at page 9 specifically for how to apply learning from this book in a Science context.</p>

		Also look at the “Preparing to Read” section, it provides meaningful questions as well.
8	E1.2 demonstrate an understanding of First Nations, Métis, and Inuit knowledges and values about water, connections to water, and ways of managing water resources sustainably	<ol style="list-style-type: none"> 1) Reveal: Watch The Anishinaabe woman who walked for water rights after reading The Water Walker. What have you learned about Josephine Mandamin’s perspectives on water? 2) Relate: What are your values when it comes to water? What does it mean to be in relationship with water, instead of seeing it as a resource to be used? 3) Reflect: Listen to Nokomis on YouTube—“Water Journey – Trailer”. This 3:38 clip highlights the 2011 water walk featured in The Water Walker. Why has and will Nokomis do anything for the water? What do her teachings tell us? 4) Respond: Brainstorm a list of actionable ways in which you can stand up for the water in your school, at home, and in your community. Which one will you start with first? Complete this as a project. <p>Extension: Check out the Passport to ReconciliACTION resources on Water.</p>

[We Are Water Protectors](#) by Carole Lindstrom and Michaela Goade

<https://www.youtube.com/watch?v=N6DNYgRG4IU>

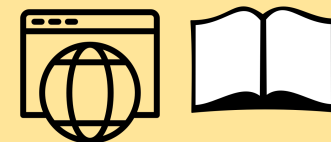


Grade	Science Curriculum Connection	Teacher Prompts
2	E1.1 assess the impact of human activities on air and water, taking various perspectives into consideration, including those of First Nations, Métis, and Inuit, and plan a course of action to protect the quality of the air and/or water in the local community	<p>Explore the learning: https://static.macmillan.com/static/macmillan/2020-online-resources/downloads/we-are-water-protectors-activity-kit.pdf</p> <p>Look at page 3 for guiding questions and ways to promote social activism. Take the Earth Steward and Water Protector Pledge on page 6.</p> <ol style="list-style-type: none"> 1. Reveal: What bodies of water are around you and your home? 2. Relate: How does the water take care of you? 3. Reflect: In this book, the author talks about the importances of protecting water from oil spills and pollution. How might we become water protectors ?

		4. Respond: Describe ways that you can protect the water and the Earth.
8	<p>C1.2 assess the environmental and social impacts of fluid spills, including impacts on First Nations, Métis, and Inuit communities, and including the cost and technical challenges related to cleanup and remediation efforts</p> <p>E1.2 demonstrate an understanding of First Nations, Métis, and Inuit knowledges and values about water, connections to water, and ways of managing water resources sustainably</p>	<p>Explore the learning: https://static.macmillan.com/static/macmillan/2020-online-resources/downloads/we-are-water-protectors-activity-kit.pdf</p> <p>Look at page 3 for guiding questions and ways to promote social activism. Using the section: Tips and Tricks for Community Engagement, lead the class through ways of enacting social change.</p> <ol style="list-style-type: none"> 1. Reveal: What is your relationship with water? 2. Relate: What are values? What are your values around water? What values around water are shared in the story? 3. Reflect: Describe ways that you will raise awareness for environmental issues, especially around protecting water from toxic spills. 4. Respond: What actions are you going to take to make a difference, locally and globally?

[Where Fires Dance - Alderville Black Oak Savanna](#)

A story about an endangered ecosystem, its remarkable inhabitants, and efforts to save them from extinction. This book can be used over an entire week, reading one or two chapters a day and reflecting on the specific learning in each one.



Grade	Science Curriculum Connection	Teacher Prompts
5	E1.3 analyze how First Nations, Métis, and Inuit communities use their knowledges and ways of	<ol style="list-style-type: none"> 1. Reveal: What do you know about Alderville Black Oak Savanna? Tour the website and create a list of questions. 2. Relate: In the book, Badger talks about the arrival of “others” on wooden ships across the ocean and how things changed in the savanna. What traditional

	knowing to conserve energy and resources	<p>practice was replaced in this story? Why did wild-fires and controlled burns stop in the savanna? What was the overall result?</p> <ol style="list-style-type: none"> 3. Reflect: How are controlled burns a way of restoring natural resources? Why is it important to understand the importances of Indigenous Knowledge and ways of knowing when it comes to keeping a balance in ecosystems and to restore resources? 4. Respond: Part of being a Treaty person (which we all are) is helping to care for the land. What actions can you take to ensure natural resources are conserved?
6	B2.8 describe the importance of biodiversity in supporting agriculture, including Indigenous agriculture around the world	<ol style="list-style-type: none"> 1. Reveal: What does this story reveal about the importances of fire for this First Nation community? 2. Relate: When people arrived from beyond the ocean, they changed the landscape significantly by planting monocultures. What was the overall impact of this change to the ecosystem? 3. Reflect: Learning through storytelling is an important part of culture in many First Nation, Métis, and Inuit communities. Why is it important for people to know the story of the Black Oak Savanna? How does this view of the world impact decisions about ecosystem management practices? 4. Respond: How might you take what you have learned from this story and help the next generations like Badger's family did. How might we support the work being done at the Alderville Black Oak Savanna? <p>Learn more about Alderville's Black Oak Savanna. You can book a field trip to visit Alderville's Black Oak Savanna for experiential learning opportunities.</p>