Advancing Education for Sustainable Development in Canada

New Mindsets for a Better Future

unesco
Canadian Commission

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The toolkit draws on the expertise of over 40 knowledge holders in ESD and ILBE. Since 2024, with support from ECCC, two working groups with members from several provinces and territories including on-the-ground practitioners as well as national and international governmental/institutional education-related stakeholders met regularly to discuss the state of ESD and ILBE in Canada. They examined ESD and ILBE initiatives across the country and, with this toolkit, collaborated to provide a snapshot of the state—and future—of ESD and ILBE in Canada. The integration of Indigenous voices through the contributions of the ILBE working group has been essential in shaping the toolkit, and contributes to reconciliation and decolonization efforts in Canada within the framework of UNESCO's ESD roadmap. CCUNESCO would like to acknowledge the authors David Zandvliet (UNESCO Chair in Bio-Cultural Diversity and Education, Simon Fraser University), Katrin Kohl (UNESCO co-Chair in Re-Orienting Education Towards Sustainability, York University) and Patti Ryan (President, Southside Communications Inc.).

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- **Barbara Filion**, Programme Officer, Culture
- **Zoe Compton**, Programme Officer, Natural Sciences

Abbreviations

ACEE	Alberta Council for Environmental Education
ACTES	Actions Collectives en Transition Environnementale et Sociale
AYLEE	Alberta Youth Leaders for Environmental Education
CEF	Climate Education Framework
CMEC	Council of Ministers of Education, Canada
CCUNESCO	Canadian Commission for UNESCO
ECCC	Environment and Climate Change Canada
ESD	education for sustainable development
FNSB	First Nations School Board
GEP	Greening Education Partnership
IEL	Institute for Environmental Learning
ILBE	Indigenous land-based education
LSF	Learning for a Sustainable Future
MOOC	massive open online course
OISE	Ontario Institute for Studies in Education
SDG	Sustainable Development Goal
SFU	Simon Fraser University
TDSB	Toronto District School Board
TRC	Truth and Reconciliation Commission
UN	United Nations
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCC	United Nations Framework Convention on Climate Change
UQAR	Université du Québec à Rimouski

Guidance from Indigenous Knowledge: The Dish With One Spoon

Long ago, when the world was still young, the people of the land came together to discuss how they could live in harmony with one another and with the Earth that sustained them. They knew the land provided everything they needed—food, water, medicine, shelter—but also that it needed proper care to continue doing so.

The leaders of the Haudenosaunee and Anishinaabe Nations gathered in a circle, surrounded by the beauty of the Great Lakes. They spoke of their shared territories, rich with forests, rivers and game. They recognized that many Nations lived on this land and that its gifts were not meant for one group alone. They needed a way to share it peacefully and to ensure that everyone understood why this was important.

One of the leaders stood and spoke, holding up a dish. “This,” they said, “represents the land. It is a great dish that we all eat from. It holds the berries, the game, the fish—everything we need to survive.”

Then they held up a single spoon. “And this is how we must eat—from the dish, but with only one spoon, because we do not take more than our share, and no knife, because we value peace and do not harm one another.”

The people nodded in agreement. They understood that the dish symbolized their shared territory, and the one spoon reminded them of their responsibility to each other and to the land. Each person would have enough, but no one could be greedy. They also knew that if they disrespected the dish—if they polluted the water, overhunted the game, or forgot to care for the forests—everyone would suffer.

From that day forward, the people lived by this understanding. The Dish With One Spoon story became a covenant of peace and cooperation. It reminded them that they were all connected—not just to each other, but to the land and all the living beings that depended on it. And so, whenever they gathered, they would speak of the dish and the spoon, reminding one another of the promise to live in balance, share the Earth’s gifts wisely, and pass on this teaching to future generations.

“The Dish With One Spoon” is a metaphor for sharing the land (Glover, 2020). It brings to life the related ideas that we should take only what we need, keep the dish clean, and always leave something in it for others—ideas that are crucial to convey in education for sustainable development.

This story has been told and retold for centuries, serving as a guiding light for how to live in harmony with the world and each other (Gallant, 2020). As true today as it was then, it reminds us that the land’s gifts are not infinite, and we must treat them—and one another—with respect and care.

Preface

As Canada navigates the complexities of a globalized world, the role of education in shaping a sustainable and equitable future cannot be understated. At the Canadian Commission for UNESCO (CCUNESCO), we believe that **education for sustainable development (ESD), with Indigenous land-based education (ILBE) at its core,** holds great potential to empower individuals—especially those involved in formal education at all levels—as well as education systems in the provinces, territories and communities of all shapes and sizes.

In fact, ILBE is the original method of education in the land now known as Canada. Our hope is that by focusing on ESD and centering ILBE, we can address the sustainability challenges of today and tomorrow. Together, we can equip Canadians to make informed decisions that contribute not only to their own individual well-being, but to a more just, inclusive and resilient society in Canada and beyond.

Supported by Environment and Climate Change Canada (ECCC), this toolkit is an important step in raising awareness, developing expertise and encouraging the implementation of ESD within the framework set out in "Education for Sustainable Development for 2030: A Roadmap" (UNESCO, 2020). The ESD roadmap promotes education and training, builds awareness of global and local sustainability challenges, and advances the implementation of the *2030 United Nations Agenda for Sustainable Development* and the 17 Sustainable Development Goals (SDGs). As Canada seeks to make progress on the SDGs, education—especially ESD and ILBE—must be at the forefront of this transformation. That's because ESD not only enhances learners' knowledge and skills, but also fosters empathy, responsibility and active citizenship.

Through the collective and ongoing efforts of Indigenous Peoples, educators, policy makers, students, parents and civil society, Canada has made significant progress in embedding sustainability into its educational systems. But this journey is far from complete. This is especially the case with respect to deepening Reconciliation with Indigenous Peoples in Canada and including Indigenous worldviews and knowledges in formal education. As we look ahead, CCUNESCO is committed to fostering partnerships and supporting initiatives that advance ESD and Truth and Reconciliation with Indigenous Peoples in Canada, ensuring that learners of all ages are prepared to address the challenges of today and tomorrow.

This publication represents a collaborative effort to provide context, guidance, resources and inspiration for those working in education, policy and community-building. It reflects our shared vision for a future in which education is a powerful tool for creating a sustainable world and everyone has the opportunity to thrive within planetary boundaries.

We hope this toolkit will catalyze dialogue, action and innovation and inspire educators and change agents across Canada and around the world to continue integrating sustainability principles of into all levels of learning. Together, we can build a future in which education is truly transformative and sustainability is at the heart of every decision.

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Introduction

UNESCO's ESD roadmap emphasizes that, while education is essential for transforming societies, education itself must be transformed if it is to fulfill this role. The implementation of ESD builds on efforts to transform education in five priority areas (UNESCO, 2020, p. 25):

1. Advancing policy
2. Transforming learning environments
3. Building capacities of educators
4. Empowering and mobilizing youth
5. Accelerating local level actions

By creating activities in these priority areas, the roadmap aims to use ESD to raise awareness and understanding of the SDGs and mobilize action toward their achievement.

Given that no single country can achieve the SDGs alone—and that the 17 SDGs cannot be viewed (or achieved) in isolation from one another—the role of education in advancing sustainable development is necessarily complex and multilayered.

Beyond enabling each learner to understand the interconnectedness of the global and local challenges, ESD, ILBE and global citizenship education aim to foster a willingness to embark on a collaborative journey with others—including governments, education systems, civil society and the private sector—to collectively advance the SDGs. Recognizing these approaches to education as catalysts for change, the roadmap seeks to engage all learners, regardless of their backgrounds or ages, in developing and sharing the knowledge and skills needed to advance the conversation. These will help societies move from conscience to action and work together toward sustainable solutions.

The roadmap also provides a framework for UNESCO Member States to take the lead on strengthening the role of education in advancing sustainable development. Country-level activities draw from the following principles (UNESCO, 2020, p. 20):

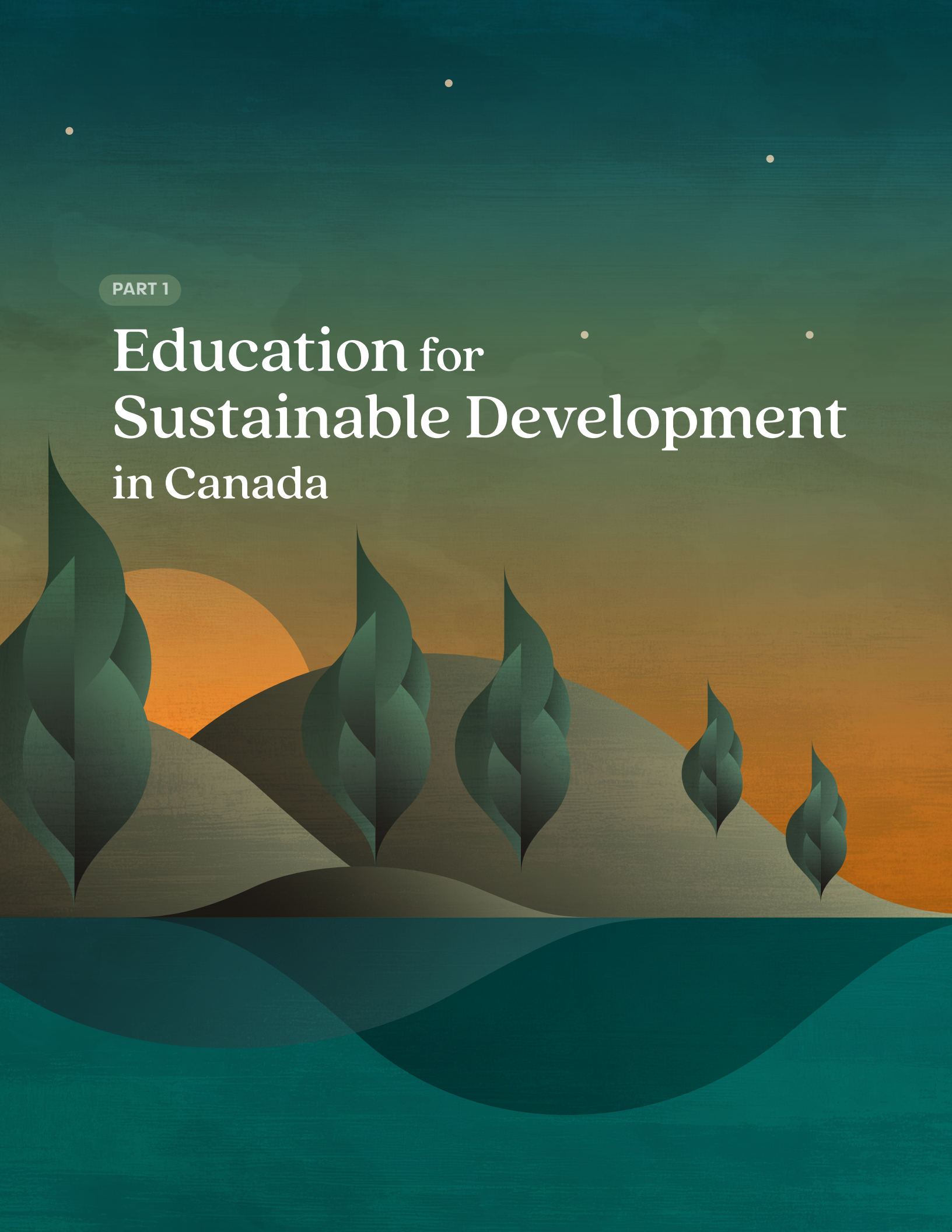
- Addressing the five priority action areas
- Engaging all concerned stakeholders
- Advocating and mobilizing resources

The country-level activities related to the roadmap are diverse and adapted to local cultural contexts. For example, they may promote ESD, document activities, monitor progress, integrate ESD into education frameworks, promote multi-sectoral partnerships and collaboration, and more (UNESCO, 2020, p. 39).

This toolkit contributes to Canada's country-level initiative.

PART 1

Education for Sustainable Development in Canada



The idea behind this toolkit

This toolkit provides a framework to support professional educators of all levels—from early childhood through to higher education and adult learning—in their efforts to incorporate education for sustainable development (ESD) into their practice. Wherever possible, including principles of Indigenous land-based education (ILBE) and making connections to United Nations Educational, Scientific and Cultural Organization (UNESCO) designated sites is encouraged.

CCUNESCO encourages educators to adapt the key principles to fit local learning contexts. The goal is to create opportunities to reflect ESD in learning environments, leading to institution-wide approaches to sustainability that are meant to teach students to "live what they learn and learn what they live" (UNESCO, 2020, p. 8).

This toolkit can also benefit people who teach and assume leadership roles outside of formal contexts, such as leaders of non-governmental and not-for-profit organizations, community groups and volunteers, as well as partners from media, business and industry. CCUNESCO is particularly interested in reaching and including youth from these groups and beyond.

Developed as a contribution to UNESCO's ESD for 2030 roadmap, this toolkit highlights a selection of Canadian efforts to promote ESD in provinces and territories across the country and to offer insights into Indigenous land-based education (see Part 3 and Appendix A). Much is happening in Canada, and this toolkit aims to showcase the breadth of good practice that is taking place every day. At the same time, it aims to foster greater understanding, motivation and interest in ESD in order to improve the quality of education and support the world's ability to achieve the SDGs.

Take action

Read the ESD for 2030 roadmap to learn why education is so critical to the SDGs.

The United Nations Sustainable Development Goals

The world faces transformational threats and opportunities brought about by technological revolutions and a changing climate.

Innovations like digitization and artificial intelligence are revolutionizing how people access, create and apply knowledge, skills and perspectives, but simultaneously muddy the waters and make it tougher to distinguish fact from fiction (UNESCO, 2021a, p. 72). As high-speed internet and personal technologies become more commonplace, those who don't have reliable access to these digital realms risk being left out of an increasingly connected world (UNESCO, 2021a, p. 72).

Meanwhile, increasingly severe weather, climate change and biodiversity loss are posing existential threats to people around the world. In Canada, coastal communities are weathering record-breaking storms, people in the Prairies are contending with years-long droughts and Northern communities are witnessing accelerating risks to their traditional ways of life, food security and cultural heritage as the warming climate melts sea ice and thaws permafrost. These impacts threaten infrastructure, disrupt ecosystems and destabilize hunting, fishing and land-based practices. Through it all, Indigenous communities in particular face a disproportionate number and intensity of climate change impacts (Reed, G. et al. p.22).

These challenges throw a stable future into doubt and raise the need to establish a sustainable way forward for all.

The UN's 17 SDGs, adopted by consensus in 2015, outline a pathway toward this vision, defining the societal transformations needed to help guide the world towards a sustainable and equitable future by 2030.

Globally, as of 2024, only 17 percent of SDG targets were on track to be achieved by 2030, and another 17 percent of targets had regressed. Meanwhile, challenges related to climate, migration, security and inequality have continued to evolve (United Nations, 2024). The longer the world waits for progress, the more difficult the task will become and the more it will cost future generations: this is where ESD and ILBE play critical roles. Education can help tackle these challenges today and create enduring solutions for the future.

Take action

Learn how you can bring the SDGs into the classroom.

Education for Sustainable Development, at the heart of the UN SDGs, promotes cognitive, social-emotional, and behavioural learning to empower individuals to contribute to a sustainable future and think and work in an interconnected, holistic way. This wheel illustrates the interconnected and dynamic nature of the 17 goals, highlighting their collective role in driving sustainable development. (UNESCO, 2020, p.17).

Education: a cornerstone of the solution

Fundamental societal change will be critical in shaping sustainable futures for people in Canada and beyond. This transformation starts with education, which has the power to profoundly shape societies and spark potential solutions. In fact, UNESCO's own mission is founded on the importance of education and lifelong learning—something that is strengthened by the SDGs.

In particular, SDG 4 encompasses all levels of education and calls for the inclusion of vulnerable and marginalized groups, including Indigenous Peoples, in education and training. It also insists on promoting "lifelong learning opportunities for all" (United Nations, 2015, p. 14).

The ultimate goals of creating equitable access to education are clear, and the right to education has long been recognized by the UN and other international organizations (United Nations, 1948). Nevertheless, traditional western classroom instruction has its limits. Current education systems still do not reach all learners. Around the world, around 260 million children and youth are out of school (UIS, 2019, p. 1), and in Canada, 11 percent of youth between the ages of 15 and 29 are neither in education, employment nor training (Statistics Canada, 2024b).

Additionally, these systems risk failing learners. A significant number of graduates lack basic literacy skills. Globally, about 750 million adults—two-thirds of whom are women—lack basic reading and writing skills (UIS, 2017). According to a 2023 survey by the Organisation for Economic Co-operation and Development, 19 percent of Canada's adult population is considered to have inadequate literacy skills, though younger adults are performing better than older generations (OECD, 2024). And while most recent new Canadians have achieved some level of higher education, linguistic barriers in English and French can be tough to overcome (Schimmele, C. & Hou, F, 2024), implying a need to further educational opportunities.

Even when education systems can reach learners, delivering education as usual will not be enough to inspire significant individual and societal shifts toward environmental, social and economic sustainability. Indeed, the best-educated countries have long had the most negative impacts on planetary resources (UNEP, 2024, p. 64). Quality ESD presents an opportunity to shift the status quo and address the challenge of systemic social exclusion faced by marginalized or vulnerable groups. It is a cornerstone for understanding the causes, contexts and implications of existing and emerging sustainability issues and how they affect everyone (even if indirectly) and heighten risks for the future.

In particular, ILBE can give people the mindset and tools they need to play a role in containing or reducing the problems people face, both individually and as societies. It is a worldview that challenges western ideas of individualism in its focus on collective well-being and reciprocity, and emphasizes responsibility and respect for all forms of life, recognizing their inherent value and role in ecosystems. ILBE calls on people to care for and honour these relationships, maintaining harmony and balance. Importantly, it is also local: the teachings are specific to the territories from which they have evolved.

ILBE can guide people in developing a deeper relationship with the land where they live, helping them gain understanding and appreciation of the world around them, which in turn forms the foundation for a motivation to safeguard and care for that same world.

ILBE is critical to connecting students with their world because it:

- addresses the need for culturally relevant education for youth;
- provides opportunity for intergenerational transfer of knowledge;
- builds resilience in communities;
- helps revitalize languages;
- teaches the history and impacts of residential schools;
- empowers young people to develop their own connections to the land, to protect their lands, and to fight for their rights; and
- empowers students to fight for positive change, using recommendations from the Truth and Reconciliation Commission, the Missing and Murdered Indigenous Women and Girls report, and their rights as outlined in United Nations Declaration on the Rights of Indigenous Peoples (Cherpako, 2019).

According to Alex Wilson, the best way to understand Indigenous land-based education is as a way of teaching and learning that has existed since the beginning of humans—and while it may not be new, the context we're in is, and it is giving Indigenous land-based education an increasingly critical importance. "We're at a place and time where we have an opportunity to draw from that knowledge," she says. "If people had listened to Inuit people 60 years ago when they started sounding the alarm about climate change, what might be different now?" (CCUNESCO, 2021).

Indigenous Knowledge represents a wholly different way of knowing the Earth, grounded in thousands of years of living with the land and building relationships with all parts of the environment. It has a key role to play in the achievement of SDG target 4.7 and numerous other SDGs.

SDG target 4.7 seeks renewed purpose and quality in education:

"By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through **education for sustainable development** and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, **global citizenship** and appreciation of cultural diversity and of culture's contribution to sustainable development." (United Nations, 2015, p. 17)

What does ESD entail?

According to "Education for Sustainable Development for 2030: A Roadmap":

> ESD empowers learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society empowering people of all genders, for present and future generations, while respecting cultural diversity.
>
> ESD is a lifelong learning process and an integral part of quality education that enhances cognitive, social and emotional and behavioural dimensions of learning. It is holistic and transformational and encompasses learning content and outcomes, pedagogy and the learning environment itself.
>
> ESD is recognized as a key enabler of all SDGs and achieves its purpose by transforming society. (UNESCO, 2020, p. 8)

ILBE is a key component of ESD in Canada because it helps us understand our place within—and responsibility to—the wider universe. Regionally focused and shaped around the lands where people live, it fosters teaching through stories and linking knowledge to culture, territory and language.

A major global benefit of ILBE may be its potential to lead to better environmental protections by changing people's relationships with the land—a development that could have important implications for a world that is struggling with climate change, biodiversity loss and environmental degradation. Moreover, it grounds sustainable development work in culture and Indigenous Knowledge—themes set out in the 2022 MONDIACULT Declaration, made by the ministers of culture of UNESCO Member States:

> We stress the importance of integrating cultural heritage and creativity into international discussions on climate change, given its multidimensional impact on the safeguarding of all forms of cultural heritage and expressions and acknowledging the role of culture for climate action, notably through traditional and Indigenous Knowledge systems. (UNESCO, 2023b)

Although ESD is positioned alongside other themes such as human rights, gender equality and global citizenship in SDG 4.7, it retains unique importance with regards to the delivery of quality education and, more broadly, the achievement of all 17 SDGs. In fact, the UN has recognized ESD as "an integral element of quality education and a key enabler for sustainable development" (United Nations, 2023a) because it can support the development of specific programs and curricula that target universities and government agencies, ensuring that ESD principles are integrated into federal and provincial operations and policies.

UNESCO's first *Global Education Monitoring Report* (2016) made clear the importance of ESD in achieving the SDGs. Building on the resulting momentum, UNESCO refined learning objectives for achieving the SDGs through ESD, resulting in "specific cognitive, socio-emotional and behavioural learning outcomes that enable individuals to deal with the particular challenges of each SDG" (UNESCO, 2017, p. 8).

Together, ESD, ILBE and global citizenship education make up the core educational approaches that can contribute to sustainable development:

- ESD focuses on the knowledges, skills, attitudes and values at the individual level that empower people to make decisions and take actions that promote environmental integrity, economic viability, and a just and peaceful society.
- ILBE's holistic approach helps learners understand the interconnectedness of the natural world and the beings that inhabit it. As a result, ILBE offers a powerful way to help students find more impactful solutions to challenges.
- Global citizenship education adds a dimension of engagement in informed (shared) action by empowering learners to assume responsible roles in society and collaborate to tackle challenges at both local and global levels (UNESCO, 2019).

Go further

Learn how to implement a climate-and kindness-informed educational approach in your classroom.

Discover curated ESD classroom resources for all ages and subjects.

Sustainability as a central purpose of education: a short history

Education and training, as well as building public understanding and awareness were first recognized as means of implementation during the 1992 Earth Summit in Rio de Janeiro (Brazil), when the global community adopted the first-ever global action plan toward sustainable development: *Agenda 21* (United Nations, 1992). Since then, ESD has been essential in all levels of education, extending beyond formal and non-formal education systems into communities and encompassing lifelong learning. **The idea, in short, is that sustainability must be positioned as a key purpose of education and learning.**

Since 2005, UNESCO has coordinated global efforts and programs to promote and implement ESD, including:

- the UN Decade of Education for Sustainable Development (2005 to 2014), which established a framework to promote ESD and highlight its potential to enable changes in formal education, training, and public awareness and understanding (UNESCO, 2014a);
- the UNESCO Global Action Programme on Education for Sustainable Development (2015 to 2019), which built on the growing international recognition of ESD as an integral element of quality education and a key enabler for sustainable development (UNESCO, 2014b); and
- the ESD for 2030 roadmap, which UNESCO has been implementing since 2020, which elevates ESD as a key driver in advancing the 17 SDGs (UNESCO, 2020). To underline efforts in the Global Action Programme and enhance visibility, the Berlin Declaration was adopted in 2021 (UNESCO, 2021b).

These three global action plans highlight four important areas of work:

1. **Promoting and improving quality education.** Countries are expected to expand access to education at all levels and prioritize educational quality by embedding sustainability principles into the core of learning and positioning learning for the purpose of advancing sustainability while meeting the needs of diverse learners of all ages.
2. **Reorienting educational programs.** Programs at all educational levels must include economic, environmental and social sustainability aspects to address cognitive, behavioural and socio-emotional learning, equipping learners with the competencies needed for sustainability.
3. **Building public understanding and awareness**. Education plays a key role by raising awareness of the challenges and opportunities associated with building more informed, engaged communities.
4. **Providing practical training to advance ESD**. In this toolkit, “training” may include vocational training, professional development and lifelong learning opportunities that focus on practical solutions to sustainability challenges.

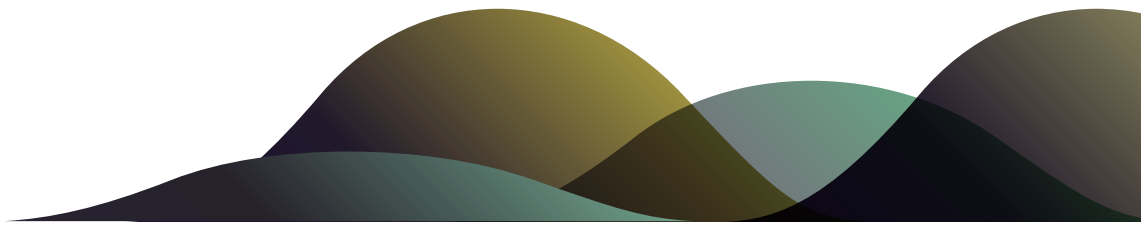
Together, these areas of implementation form a foundation for transforming education systems to support sustainable development and create a more just, equitable and resilient world (McKeown, 2006). They align with all global action plans for sustainable development and ESD, including SDG 4 targets and the ESD for 2030 roadmap.

ESD frameworks: treaties, conventions and other tools

Education efforts are central to global frameworks, and many initiatives are rooted in the commitments of *Agenda 21* (United Nations, 1992). For example:

- In 2007, the UN introduced the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which underscores the importance of education efforts as a cornerstone for preserving cultural knowledge, advancing self-determination, and achieving the goals of global frameworks like the 2030 Agenda for Sustainable Development.
- Since 2016, under Article 6 of the Paris Agreement (the international treaty to tackle climate change), the Action for Climate Empowerment has aimed to accelerate solutions through education, training, and public awareness and understanding (UNFCCC, 2015).
- Since 2021, the Common Agenda (the UN Secretary General's 25-year vision) has prioritized the transformation of education, including hosting a Transforming Education Summit in 2022 (United Nations, 2022). As one of the outcomes, a multi-stakeholder collaborative platform titled the Greening Education Partnership now contributes to ESD, with a focus on climate education globally (UNESCO, 2022).
- In 2021, UNESCO issued an invitation to UN member states and the general public to rethink education using the Futures of Education as a framework and consider understanding education as a new social contract (UNESCO, 2021a). The Futures of Education initiative aims to consider how education can shape the future of humanity and the planet amid challenges like climate change, technological disruption and inequality.
- Since 2023, the UNESCO Recommendation on Peace, Human Rights and Sustainable Development (a new standard-setting instrument) has offered common grounds for ESD and global citizenship education to cope with the urgent issues of our time, such as climate change, digital technology changes and cultural diversity (UNESCO, 2023a). Progress will be measured every four years.
- In 2024, the Parties to the Convention on Biological Diversity adopted a new action plan on communication, education and public awareness, with ESD at its core (CBD, 2024).

Frameworks like these demonstrate the global community's crucial commitment to the importance of education, particularly ESD, and to implementing education that guides individuals and societies toward sustainable development.



ESD and the SDGs in Canada

As a UN and UNESCO Member State, Canada is committed to the *United Nations 2030 Agenda for Sustainable Development* and has undertaken significant steps to respond to it. Over time, Canada has made considerable progress toward the SDGs.

National efforts

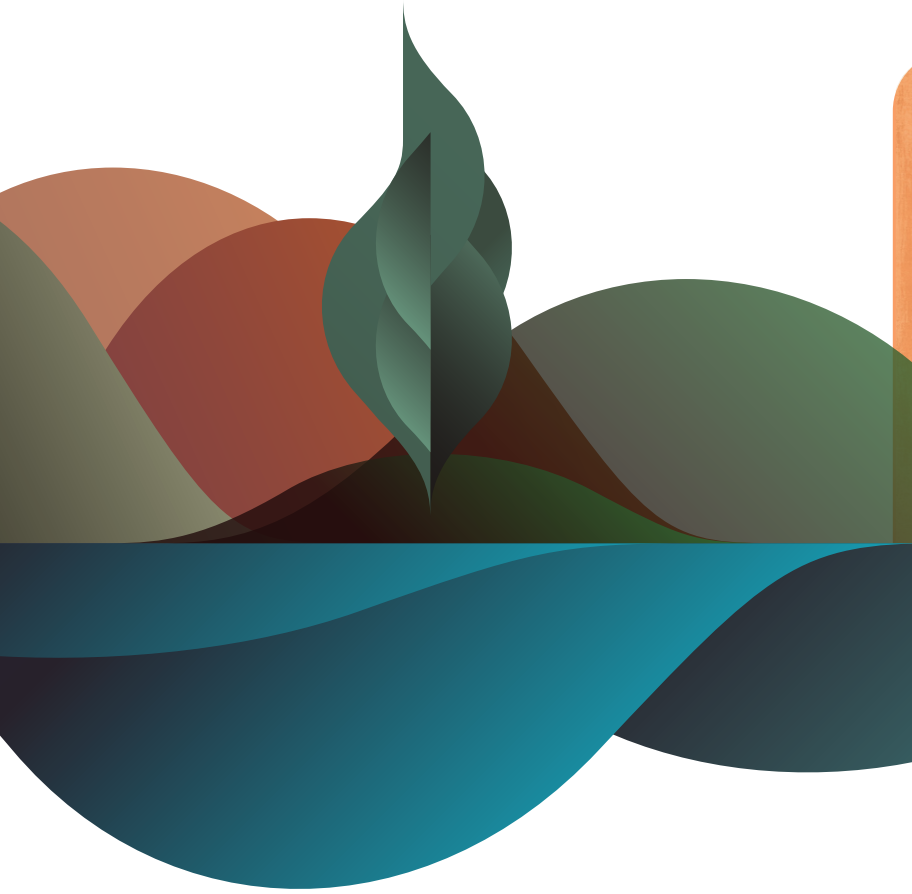
The following pan-Canadian strategies and frameworks highlight national efforts in the areas of education, training, and public awareness and understanding, respecting the provinces' and territories' roles in making formal education decisions.

- **Canada's 2030 Agenda National Strategy:** Canada's strategy for achieving the SDGs is outlined in *Moving Forward Together: Canada's 2030 Agenda National Strategy* (ESDC, 2021). The strategy emphasizes collaboration between the federal government, provinces, territories and Indigenous communities, as well as engagement with civil society and the private sector. Although Canada aims for a whole-of-government approach toward all 17 SDGs, there are five national priority areas for action: SDG 1 (No Poverty), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 13 (Climate Action) and SDG 17 (Partnerships for the Goals).
- **Canada's participation in Voluntary National Reviews (2018 and 2023):** Canada has participated in Voluntary National Reviews of its national progress toward the SDGs (GAC, 2018; ESDC, 2023). Voluntary National Reviews are official reports submitted by UN Member States to the High-Level Political Forum on Sustainable Development. The reviews aim to foster accountability, knowledge-sharing and collaboration among countries.
- **Federal Sustainability Strategy:** Canada's *Federal Sustainable Development Strategy (2022 to 2026) is* a cornerstone of the country's efforts which outlines 13 goals that align with the 17 SDGs (ECCC, 2022).
- **National Statement of Commitment:** In 2022, Canada delivered its statement of commitment during the United Nations Transforming Education Summit (Government of Canada, 2022). The statement outlines national priorities and commitments for transforming education, including goals like integrating climate education, achieving equity and improving education systems.
- **Participation in the Greening Education Partnership (GEP):** Several Canadian contributors have become partners to the GEP, which was launched in 2022 at the United Nations Transforming Education Summit. The partnership is a global initiative led by UNESCO that aims to integrate climate education into all levels of education, empowering learners to address the climate crisis through four key action areas: greening schools, greening curriculum, greening communities and greening teacher training and education systems' capacities.
- **Country initiatives for the ESD roadmap:** In 2025, a country initiative for the ESD for 2030 roadmap was established by Quebec, and a pan-Canadian country initiative was coordinated by CCUNESCO.

For more details on national efforts to support ESD in Canada, see Appendix A.

Regional efforts

Canada's provinces, territories and communities have also contributed strategies, frameworks and policies to advance ESD. For details about some of these initiatives, see Part 3: Regional Overviews and Promising Practices, as well as the supporting document *Detailed Environmental Scan,* available on our website.



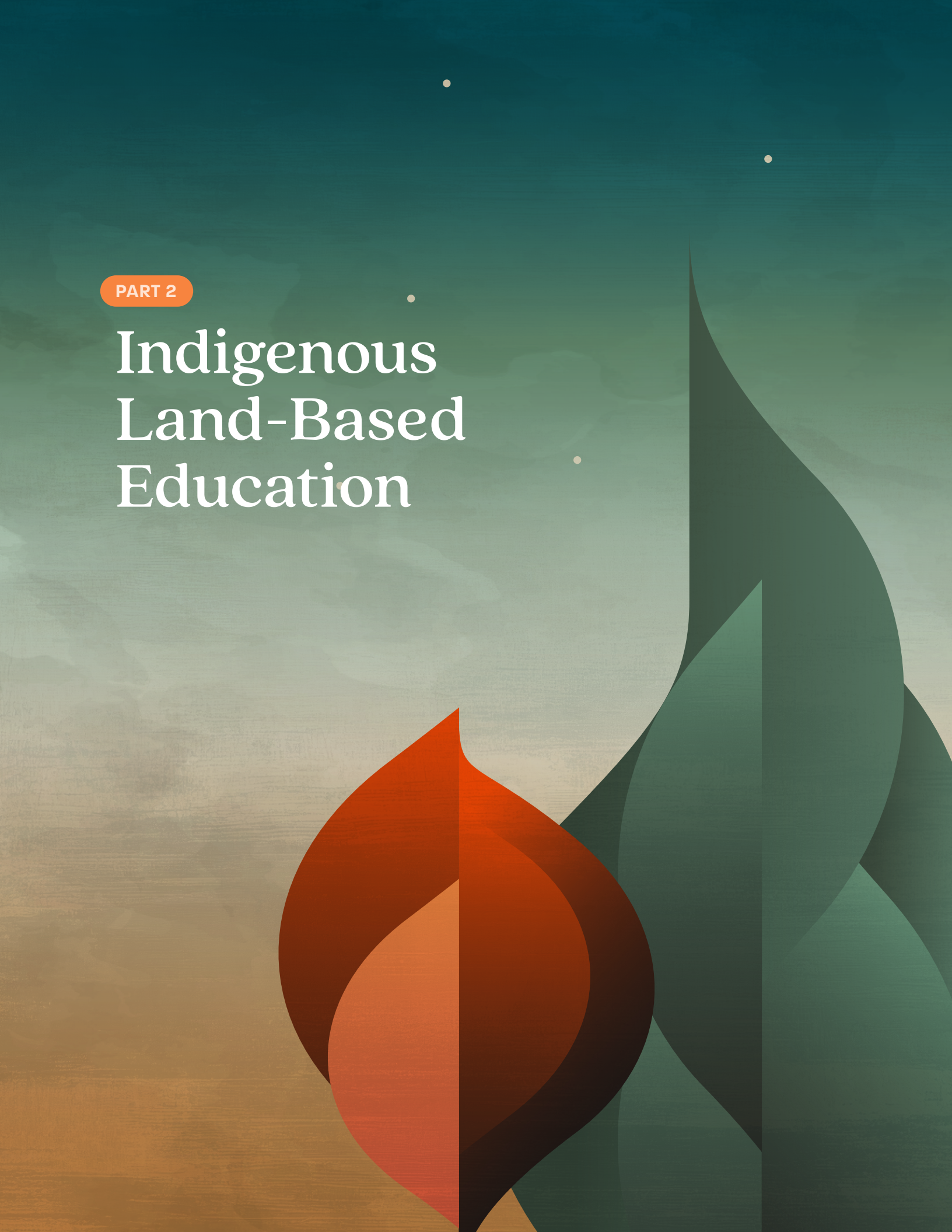
Take action

Learn more about how the UNESCO Associated Schools Network is building a global community of engaged schools working towards the SDGs.

Join the UNESCO Associated Schools Network.

PART 2

Indigenous Land-Based Education



An important note about voice and information sources for this chapter

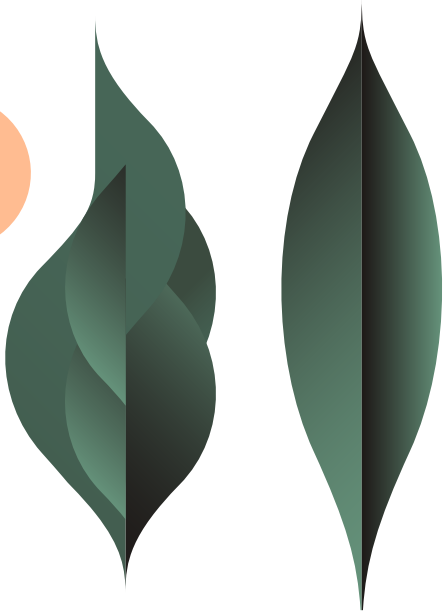
An Indigenous Land-Based Education Working Group and additional experts provided the ideas for this chapter of the toolkit. Over the course of more than a dozen hours of discussion across multiple meetings convened by CCUNESCO, we discussed what would be most important to include in this toolkit and how best to approach and structure the information. Our names, affiliations and cultural backgrounds are presented in the Acknowledgements section of this document.

Many of the ideas and classroom suggestions we present in this chapter were discussed orally. As a result, we have not used an academic style (i.e., relying on citations and references to written works) to present that information. That said, where feasible or necessary, we have provided references to acknowledge original sources of information, and we sometimes recommend the appropriate use of cultural resources. We have also provided a list of recommended reading (see Appendix C), and we encourage people to continue to educate themselves.

Please note that this document does not encompass the opinions, views or perspectives of all Indigenous Peoples, nor is it intended to convey that all Indigenous Peoples share the same viewpoints or opinions. In fact, working group members were chosen for their regional and cultural diversity. There were many lively discussions during our working group meetings, and there was not always complete agreement on the best approaches to certain aspects of the content. Furthermore, this document does not address all the issues and concerns regarding cultural policies and Indigenous Peoples. It was created with the intent to spark dialogues, ideas and actions that contribute to positive change.

Note to the reader:

In this chapter, we speak to you directly with a singular voice (“we”). Although it may sometimes sound as though we are speaking for all Indigenous Peoples, it should not be understood that way. We are speaking with the unified voice of one working group that is doing its best to share ideas while also recognizing the immense diversity of Indigenous Peoples across Canada.



A closer look at the Dish With One Spoon story

This toolkit opens with the story of the Dish With One Spoon. Many Indigenous languages have a word or phrase that reflects this concept, reflecting cultural nuances. For example, Plains Cree “Y” dialect nehiyawak (People) have the word wāhkōhtowin, suggesting relationship, interconnectedness and interactions—not just with an ecosystem and its people, plants and animals, but with an entire unseen world, including ancestors. Similarly, the words kayaw niwahkomakanak mean “All My Relations” and encompass the principles that govern our relationships with each other and with other beings.

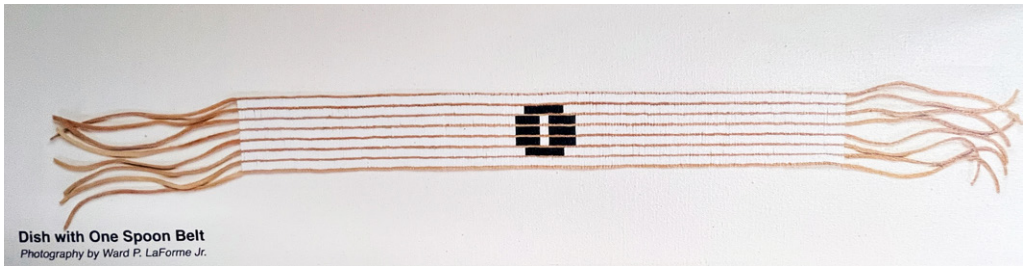
Historical context

Centuries old, the original Dish With One Spoon agreement predates the arrival of settlers from Europe. It was used among the Haudenosaunee (originally the Five Nations Confederacy, later the Six Nations) and Anishinaabe Nations, particularly the Ojibwe, Odawa and Potawatomi, to form a treaty that ensured peaceful coexistence and cooperative use of shared lands in the Great Lakes and St. Lawrence River regions of what is now called northeastern North America.

The story symbolizes collective stewardship and a commitment to share and protect the land and resources. Instead of drawing strict borders, the Nations that conceived the agreement saw their lands as a single shared “dish” with one spoon to ensure fair sharing of resources. The story embodies mutual respect, shared responsibility and sustainable resource use.

The Wampum belt associated with this treaty serves as a symbolic record of the agreement. Wampum belts, made from shell beads, are important to Indigenous cultures in eastern North America as symbols of agreements, laws and histories.

In this case, the belt—which reminds Nations of their commitments to harmony and shared responsibility—could be understood as a way to remember the agreements made by previous generations. Instead of setting out precise terms with time limits, these agreements established mutually beneficial, agreed-upon principles meant to last generations. Each party had a responsibility to make sure its actions conformed to the principles established in the treaty. As a result, rather than being a strict set of rules that could not adapt as circumstances changed, these were flexible and intended to maintain the spirit of the agreement.



The Dish With One Spoon Wampum Belt. Photo by Ward P. Laforme Jr. Photo included with permission from the Mississaugas of the Credit First Nation.

Meaning, legacy and modern use

The Dish With One Spoon story has been referenced not only in Wampum belt treaties, but also in oral traditions and other historical records that emphasize its importance in maintaining peace and unity across territories. As a lasting symbol of peace, cooperation and environmental stewardship, it represents a commitment to harmony with people and nature, guiding principles in sustainable resource use and responsible stewardship of shared spaces.

This story continues to inform treaty and land-sharing discussions today. It is referenced in dialogues on Indigenous land rights and responsibilities, conservation and environmental stewardship in Canada. It also reflects the idea that sustainable development and environmental preservation must include Indigenous Knowledges and collective stewardship.

In addition, it can help non-Indigenous people recognize that the land they live on is Indigenous land, deeply tied to the histories, cultures and livelihoods of Indigenous communities. This recognition carries an inherent responsibility: that everyone, not just Indigenous communities, must take active steps to care for the land. It means not only adopting an ethic of care, but also recognizing that Indigenous Knowledges and teachings hold the key to sustainable stewardship of the lands.

The Dish With One Spoon story offers a compelling message that can inform approaches to ESD. This chapter is intended to support teachers in learning how to use foundational concepts and to encourage educators to reflect as they build relationships with learners.

A call to relationality

There are natural connections between the Dish With One Spoon story and the concept of “All My Relations,” an expression that has deep roots in most Indigenous cultures in North America, reflecting a worldview of interconnectedness and mutual responsibility. It expresses the idea that all beings—not just humans, but animals, plants, elements and spiritual forces—are interconnected and part of a vast, interdependent web of life. Humans are not separate from or superior to the natural world, but intrinsically part of it.

The words and phrases call for responsibility and respect for all beings, recognizing their inherent value and role in the ecosystem. They call on people to care for and honour relationships with all beings to maintain harmony and balance. In contrast with western ideas of individualism, this worldview focuses on collective well-being and reciprocity.

Ultimately, the phrase “All My Relations” is a reminder that we should approach the world with humility, respect and mindfulness, understanding that every action affects the broader web of life (Learn Alberta).

What is Indigenous land-based education?

> "Land is memory, and it denies our colonial categorizations of time because it is the longest living record keeper. We have pitiful memories as humans. I am connected to my ancestors through territory, and my future grandchildren will know me in the same way. The land will hold memory even when we fail to do so. But where does my memory go if I am recognized only by concrete and wooden boxes? If no water, mountains, or medicines know my name, did I ever have a name at all? I whisper introductions of my bloodline into the air."
>
> —Excerpt from *Becoming a Matriarch*, by Helen Knott (2023)

There is no single definition of ILBE, though most contain common threads.

At its heart, ILBE is a holistic approach to learning that connects people to their ancestral land (or the land they have settled upon) as they gain knowledges passed down from Elders and/or **Knowledge Holders** (see box, next page). It is a deep, multifaceted relationship with the land that recognizes it as a source of livelihood and cultural identity.

People cultivate respect, responsibility and land stewardship by engaging directly with natural environments and communities to learn a way of life that is rooted in respect, traditions, reciprocity, relationality, responsibility and intergenerational knowledge transfer.

Ideally, all ILBE "uses an Indigenized and environmentally focused approach to education by first recognizing the deep physical, mental and spiritual connection to the land that is a part of Indigenous cultures" (Cherpako, 2019, p. 3). The central values and concepts of ILBE are:

- **Respect:** recognizing and valuing the deep connection between people and land; honouring the land as a living entity and understanding its cultural and spiritual significance, and as such, acting responsibly within all interactions.
- **Reciprocity:** the mutual exchange of respect, care and resources between people and the land; it is the idea that we must take care of the land if we want the land to take care of us, and vice versa.
- **Relationality:** the understanding and practice of interconnectedness among all beings, including humans, animals, plants, and the land itself and all the elements; it emphasizes the importance of relationships, recognizing that all elements of the ecosystem are interdependent and must be respected and cared for in a holistic manner.

- **Positionality:** the recognition of and reflection on your own social identities (such as gender, class and cultural background) and how these influence your perspectives, interactions and responsibilities within the educational context; it involves understanding how your position affects your relationship with the land and the community and acknowledging the power dynamics and privileges that come with it.
- **Intergenerationality:** the transmission of knowledge, values and practices across different generations, ensuring the continuity of cultural traditions and fostering a deep connection to the land.
- **Interconnectedness:** the recognition that all elements of the natural world, including humans, animals, plants and the land, are connected and interdependent; it emphasizes the importance of understanding and respecting these relationships to maintain balance and harmony within the ecosystem.
- **A holistic approach** that integrates physical, emotional, mental and spiritual aspects of learning, centred around the notion of interconnectedness to develop a well-rounded understanding and respect for the land, culture and community.

What is a Knowledge Holder?

Definitions of Knowledge Holders vary around the world. In the Canadian context, a Knowledge Holder is often someone entrusted with cultural, historical or environmental knowledge that is significant to their nation. Usually, a Knowledge Holder is recognized in a community as having deep knowledge of cultural teachings, traditions, ceremonies, languages, stories and histories. They are entrusted with the responsibility to carry, protect, and pass on this knowledge to others. It is a role that is earned through relationships, lived experiences and community trust. Many Knowledge Holders are Elders.

A 2021 article about ILBE published by the Canadian Commission for UNESCO offers this starting point for a definition:

> [ILBE] is a process that centres respect, reciprocity, reverence, humility and responsibility as values connected to the land through Indigenous Knowledges—a very different view from the Eurocentric mindset, which has long understood land as a resource and object to serve human uses, much to the detriment of our living world. By its very nature, ILBE has the capacity to create transformational opportunities for all Canadians to learn about the many ways in which our education, economic, social and political systems reinforce colonialism. (CCUNESCO, 2021).

Gregory Cajete, a professor of Native American Studies and Language Literacy Sociocultural Studies at the University of New Mexico, defines Indigenous education as a holistic and community-centred approach that integrates dynamic Traditional Knowledge, cultural practices, and a deep connection to the natural world (Bang, M. et al, 2009; Native Nations Institute, 2018).

At its heart, ILBE portrays the land as a sentient being with whom we should cultivate an intimate and sacred relationship. This relationship comes alive through Indigenous ceremonies. Our ceremony activates the connection between physical and spiritual worlds, brings us to a place of healing and balance within our being, and reminds us to be gentle and kind with our intentions and to walk in a state of gratitude.

New Beginnings, Acrylic on Canvas, 48" x 72", by Christi Belcourt & Isaac Murdoch.

Land acknowledgements and connections to place

Land acknowledgements in Canada have their roots in Indigenous traditions, whereby visitors would respectfully introduce themselves to the people of the land, sharing information about their family relations and community connections and affirming their relationship with the land. This practice of diplomacy and reciprocity was integral to our protocols long before settlers arrived. It was about introducing yourself to the land and acknowledging its ancestors and spirits.

In contemporary Canada, the formalization of land acknowledgements began to gain prominence after the 2015 Truth and Reconciliation Commission (TRC) report, which highlighted the need to recognize and address the historical and ongoing impacts of colonization on Indigenous Peoples. The TRC's Calls to Action emphasize the importance of acknowledging Indigenous territories as a step toward reconciliation.

Following the report, various educational establishments, government bodies and cultural organizations began incorporating land acknowledgements into their events and communications.

While land acknowledgements have become more widespread in recent years, it remains essential to approach them thoughtfully. We are now concerned that these acknowledgements are becoming superficial, perfunctory or performative (Deer, 2021) and sometimes frame the land in terms of ownership rather than stewardship.

Why acknowledge the land?

Land acknowledgements honour the historical and ongoing connections of Indigenous Peoples to our territories. They recognize the sovereignty of First Nations, Métis and Inuit Peoples and invite non-Indigenous participants to reflect on their relationships with the land and its history. These acknowledgements challenge colonial narratives and promote reconciliation by fostering awareness and respect for Indigenous rights, responsibilities and traditions.

We believe that people need to connect more personally to land acknowledgement protocols and recognize the importance of the call to relationship that land acknowledgements offer.

Here is a summary of principles and good practices for land acknowledgements from the Centre for Addiction and Mental Health's publication, *Guidance for Honouring the Land and Ancestors Through Land Acknowledgements* (2022):

- **Depth over formality:** Go beyond a scripted recitation. A land acknowledgement should reflect commitments to reconciliation and respect for Indigenous communities.
- **Reflection:** Engage in self-reflection about your relationship to the land, your position as settler or visitor, and the privileges you benefit from because of colonial systems. This could involve identifying as a settler or speaking to your reconciliation journey.
- **Connection to the present:** Acknowledge the living realities of Indigenous Peoples, including our ongoing stewardship of the land and the contemporary challenges we face.
- **Research:** Understand the history of the land, including its treaties or unceded status. Learn about local Indigenous Nations and their traditions, languages and original place names.
- **Engage** with Indigenous communities near you to ensure the acknowledgement accurately reflects the land's history and current caretakers. Compensate any Indigenous contributors for their time and expertise.
- **Practice pronunciation:** Respect Indigenous languages by practising the correct pronunciation of Nation and place names. You can look for videos online to help.
- **Integrate into context:** Tie the acknowledgement to the event's purpose or theme to make it a relevant and living statement.

We have included practical ideas for teaching about and incorporating land acknowledgements in classrooms in the "Respectful teaching and wise practices" section later in this chapter.

Land, language, identity, culture: indivisible concepts in Indigenous land-based education

There are indivisible connections between Indigenous cultures, lands, languages and relationships with all beings.

Indigenous languages express worldviews and contain guidance on our responsibilities to one another, the land and all beings. Languages name what their speakers care for—and people care for what has been named. Therefore, we believe it is important to be thoughtful about what words mean, where they originated and what values are embedded in them. You can read more about this in the "ILBE Related Terminology and Historical Considerations"section.

For now, here is a story to convey these ideas.

> Thomas Johnson of the Eskasoni First Nation explains what happens when the links between culture, territory and language are lost. He describes Kluskap's journey, a Mi'kmaq legend that recounts some of the travels of Kluskap, who has been considered a teacher of the Mi'kmaq People. While there are many versions of the stories, Johnson's paper describes the Cape Breton version of Kluskap's journey through the Bras d'Or Lake, a large inland sea in Cape Breton, Nova Scotia.
>
> It is difficult to do justice to the full story in a short summary. However, the long and short of it is that Kluskap has a series of adventures that result in either encounters with or the creation of a number of the landscape's noteworthy features, such as a cave, a set of five small islands, a prominent stone on the shoreline and outcroppings of rocks. These were all given Mi'kmaq names connected to events in the story, such as Petawlutik (Table Rock), where Kluskap has their dinner, or Pli'kan (Cape Split), where Kluskap uses a paddle to dig out the channel that forms Minas Basin in the Bay of Fundy.
>
> Johnson writes that even though the Mi'kmaw language was shaped and created by this landscape, many Elders and others in the area today have never heard of some of the words from Kluskap's stories. Being disconnected from the land has led to the loss of the language—when the connection to the land is what is actually required to maintain that reciprocal relationship and feeling of interconnectedness.
>
> "Losing the majority of our speakers was a direct result of what happens when a disconnect occurs between the Indigenous language and the land," says Johnson. Land-based education aims to remedy this disconnect by reviving the reciprocal relationship between Indigenous People and the land. It also encompasses several kinds of learning—about the land, about the history of the land and about how First Nations as a group interacted with the land. In fact, Johnson says the concepts are so closely intertwined that at one time, there was no need to even call it education. "It was just a way of life," he says. "You lived it on a daily basis. You didn't even realize you were being educated. You were one with nature. There was a deep love and respect for nature and all that it had to offer." (CCUNESCO, 2021)

The climate crisis provides an unfortunate contemporary example of the damaged relationship between land and language that is illustrated in this story. Changes to ecosystems, landscapes, animals and seasons can disrupt languages and cultures because languages come from the land. As these environmental connections erode, so does the cultural context necessary for sustaining and transmitting these languages to future generations.

Supporting the maintenance and revitalization as well as the appreciation of Indigenous languages is crucial because these contain the Knowledge Webs and worldviews that are essential to understanding and teaching land-based knowledges of the territories from which they have evolved.

Ten words for land

Here is the word for "land" in 10 of the many Indigenous languages spoken in Canada:

1. **Assi** (Innu-aimun)
2. **Nuna** (Inuktitut)
3. **askiy** (Cree)
4. **Aki** (Anishinaabemowin)
5. **Kanata** (Kanyen'kéha)
6. **E'se'katik** (Mi'kmaq)
7. **Nené** (Dene, Athabaskan)
8. **Kaahsinnoon** (Siksiká)
9. **G̲aag̲a** (Haida)
10. **Aan** (Tlingit)

Indigenous frameworks for education for sustainable development

The word “Indigenous” is a collective term that refers to the original inhabitants of a region. In Canada, it encompasses First Nations, Métis Peoples and Inuit. **First Peoples** is a similarly broad term that emphasizes the status of these groups as the original inhabitants of a land.

First Nations are Indigenous Peoples in Canada who have traditionally lived in specific territories and maintained distinct cultures, languages and governance systems. From coast to coast to coast, there are 630 First Nations communities representing more than 80 distinct languages.

The **Métis** are a distinct post-contact Indigenous People in Canada with mixed First Nations and European ancestry. That said, not all people with mixed ancestry are Métis—members of the Métis Nation in Manitoba, Saskatchewan, Alberta and British Columbia must have ties to the historic Red River community in Manitoba as well. The Métis have their own distinct culture. They are also traditionally multilingual and speak their own distinct language (Southern/Heritage Michif), distinctive Métis dialects of other Indigenous languages (Northern Michif/Métis Cree; Saulteaux/Anishinaabemowin, etc.), and a distinct Métis dialect of French (Michif French/Michif Frawnsay). And, although not governed under the *Indian Act*, the Métis are enshrined in section 35 of the 1982 *Constitution Act* as one of three distinct Indigenous groups in Canada.

The **Inuit** live primarily in 53 communities in Inuit Nunangat, which includes Nunavut, Nunavik (Northern Quebec), Nunatsiavut (Labrador), and the Inuvialuit Settlement Region (Northwest Territories). There are several dialects of the Inuktut language spoken in Canada: Inuktitut in Nunavik and the Baffin, Kivalliq and Qitirmiut East areas of Nunavut; Inuinnaqtun in the Qitirmiut West area of Nunavut; Inuvialuktun in Inuvialuit; and Nunatsiavummiutit in Nunatsiavut. (In addition, the Inupiaq and Kalaallitut dialects are spoken in Alaska and Greenland, respectively.)

Many Indigenous people no longer live in their ancestral lands. They have created community where they are.

The bottom line: Indigenous Peoples in Canada share a number of values, perspectives and ways of being, especially when it comes to caring for the land and each other—but there is also considerable diversity. Educators should avoid sharing concepts of ILBE that mistakenly convey pan-Indigeneity, a view that emphasizes commonalities and may overlook distinct identities, languages and traditions.

Frameworks

A variety of Indigenous frameworks rooted in the specificities of territories offer valuable approaches for teaching sustainable development. These frameworks support teaching about the local environment and its beings through stories, observation and the accumulated wisdom, practices and understandings that our ancestors developed over thousands of years, emphasizing the key values of respect, reciprocity, relationality, positionality, intergenerationality, interconnectedness, and a holistic approach (see the “What is Indigenous land-based education?” section for details).

As such, the frameworks can be powerful tools for education about sustainable practices. Each offers a way to learn about the world through an environment-first lens. This means looking at the world and our place in it with humility and recognizing that humans are just one part of the environment—no more important than any other beings or elements.

Using Indigenous frameworks in ESD involves embedding Nation- or community-specific principles and practices into learning experiences that encourage people to think relationally, responsibly and holistically about the environment and community.

In Canada, there is no such thing as a single Indigenous point of view or way of life. Consider the size of the country and the tremendous variations in its landscapes. Given this diversity, no single story or framework can accurately reflect all our communities and Nations. In this chapter, we have included five examples from across the country. This is by no means a complete list; many other frameworks offer equally valuable perspectives. The examples that follow are a starting point to serve as inspiration.

Note: We have included some practical ideas and examples of how to use the frameworks in the classroom in the next section, Respectful teaching and wise practices.

Two-Eyed Seeing (Etuaptmumk)

This concept was developed in Atlantic Canada by Mi'kmaq Elders Albert and Murdena Marshall, with Dr. Cheryl Bartlett (Institute for Integrative Science & Health). It encourages viewing the world through both Indigenous and western eyes, using one eye for each to integrate Indigenous Ways of Knowing with scientific approaches. It recognizes the strengths of Indigenous and other knowledges and teaches that learning to use both lenses can benefit the land and humanity.

It can be helpful in teaching topics like biodiversity, conservation and resource management. For example, educators can introduce learners to both western ecological science and Indigenous ecological Knowledge Webs, and then invite them to discuss how each perspective might approach a real-world environmental challenge, such as climate change or habitat restoration. From there, the educator can ask learners to explore ways in which the knowledges can work together to find solutions. Albert Marshall talks about how the true work happens in the space between these knowledges.

To maintain balance in Two-Eyed Seeing, educators must ensure that Indigenous perspectives remain integral and ensure that western knowledge systems do not dominate the narrative.

The Stone Circle or Celestial Circle

Sometimes referred to as the Medicine Wheel (a simplified term imposed by non-Indigenous people), the Stone Circle or Celestial Circle is a framework used by various Indigenous cultures across North America, including Cree, Anishinaabe and others (ICTINC, 2020). Its focus on balance and interconnectedness can help shape an interdisciplinary curriculum where people consider the physical, mental, emotional and spiritual aspects of sustainability. The wheel is often divided into four quadrants, corresponding to, for example, the four directions, elements or stages of life. It can teach balance in resource use, promoting well-being for all aspects of life, including self, community and environment. It's also useful for structuring curricula that include aspects of sustainability in relation to personal and collective responsibilities.

Seasonal Round

Many of our communities have understandings of seasonal cycles that differ from European ideas. Developed over millennia, these understandings are based on observations of natural cycles and the activities that take place at different times of the year. The Seasonal Round framework can be used to teach sustainable agriculture, wildlife management and conservation. It teaches sustainable resource management by emphasizing respect for the seasonal cycles and taking only what is necessary—and only at the right time—to ensure renewal. Educators can align lessons with natural seasonal cycles, helping learners understand sustainable practices rooted in nature's timing. (Note that in many regions, the framework has more than four seasons.)

The Salmon Cycle

The Salmon Cycle is integral to the Indigenous Peoples of the Pacific Northwest, particularly in British Columbia, where the salmon is not only a vital food source but also a spiritual symbol of resilience, renewal and interconnectedness within the ecosystem. The Salmon Cycle follows the life stages of salmon, from spawning to migration to death and the return of nutrients to the ecosystem, symbolizing cycles of life, death and renewal. The salmon's journey represents the health of rivers, forests and ecosystems and the importance of respecting natural cycles.

The Turtle Calendar

The Turtle Calendar is rooted in various Indigenous traditions, including those of the Anishinaabe and Haudenosaunee Nations, where the turtle represents the lunar cycles of time (Ontario Parks, 2018). The snapping turtle's shell, with its 13 inner scutes and 28 outer scutes, symbolizes the 13 lunar cycles per year and 28 days per cycle. This calendar framework represents a lunar-based understanding of time and natural cycles, symbolizing balance, natural rhythms and interconnectedness. (For more information, see The Ways of Knowing Guide: Earth's Teachings, published by the Toronto Zoo in partnership with Turtle Island Conservation.)

Turtle Lunar Calendar. Photo included with permission from Pimachiowin Aki UNESCO World Heritage site.

Frameworks like these offer unique entry points for ESD and ILBE, each emphasizing the values of respect, interconnectedness and balance. Educators can draw from them to foster a deeper understanding of sustainability as part of a natural, cyclical process rather than a set of isolated practices, making the learning experience more holistic and grounded in the land.

Understanding and valuing Indigenous Knowledge Webs and sciences

There is no point in comparing our Knowledge Webs with western science to determine which offers better information. The former is simply an entirely different way of knowing, grounded in thousands of years of living with the land and building relationships with all parts of the environment. It includes "scientific, agricultural, technical, and ecological knowledge, including cultigens, medicines, and the rational use of flora and fauna" (Battiste, 2002). These Knowledge Webs are tied to particular people and territories, passed down from generation to generation. Both ways of knowing bring important insights, and valuing them together (see "Two-Eyed Seeing" in previous section) can deepen our understanding of complex issues, like environmental care, health and community resilience.

It's important to preserve the integrity of Indigenous Knowledge Webs when integrating them into education. Educators should focus on braiding Indigenous and western knowledge systems—honouring both as distinct yet complementary—without mixing or diluting them.

There is a difference between Indigenous Knowledge Webs and Indigenous sciences, though they are closely related and often overlap.

- **Indigenous Knowledge Webs**[1] refer to the holistic, cumulative body of knowledge, practices and beliefs we developed through long-term interactions with our environments. These knowledges have been passed down through generations and include insights into ecology, medicine, agriculture and more. They are deeply rooted in cultural traditions, spirituality and community practices (Nicholas, 2018). They are dynamic and responsive to changing conditions and needs.
- **Indigenous sciences** are a subset of Indigenous Knowledges that specifically involve systematic approaches to understanding the natural world. They incorporate traditional ecological knowledges and Indigenous perspectives informed by observations and intergenerational knowledge transmission. Indigenous sciences are characterized by their holistic approach, emphasizing interconnectedness and respect for nature (Nicholas, 2018).

In both, stories can play a critical role in helping people understand relationality and interconnectedness. Our creation stories and other traditional narratives can highlight themes of respect, humility and reciprocity in relation to the land. Educators can use them to demonstrate that humans are among the neediest creatures, emphasizing a relational, rather than hierarchical, perspective.

1 The term "Knowledge Webs" (sometimes also referred to as "Knowledge Systems) is used because, in some cases, focusing too much on the "knowledge" of Indigenous Peoples and not the Peoples themselves may imply extraction. Simply referring to "Indigenous Knowledge" does not honour the generation of knowledge or the values, customs and traditions of Indigenous Peoples that form the basis of their ways of doing.

It is also important to understand what we mean by Traditional Knowledge. While the word “traditional” may seem to suggest, in certain contexts, something static or old, Indigenous Traditional Knowledge is constantly evolving. It is knowledge that stems from traditional values since time immemorial and that will also grow as future generations continue to develop their Knowledge Webs and practices.[2]

Be wary of portraying humans as “helpers of the land.” This framing can inadvertently reinforce colonial ideas of human dominance. Instead, teach that the land has its own agency and resilience and that humans are part of, not separate from, these systems.

2 The United Nations Framework Convention on Climate Change acknowledges the dynamic nature of traditional knowledge, emphasizing its role in climate change adaptation. Traditional knowledge is recognized as a vital resource that evolves over time, integrating new experiences and insights to address changing environmental conditions. This adaptability enables Indigenous communities to develop effective strategies for managing climate variability and enhancing resilience.

Respectful teaching and wise practices

While individual teachers will need to develop approaches that suit the age levels they teach—and are embedded in the lands they teach on—there are some common principles and wise practices that can be applied in all settings.

Respect, humility and relationship-building are key building blocks that permeate all the content below. We have included some special considerations for non-Indigenous educators at the end of this section.

Principles, approaches and preparation

All educators should assess their own readiness before engaging with Indigenous Knowledges. You can use reflective questions, such as "Where am I in my understanding of this work?" and "What more do I need to learn?"

Do your own background learning before seeking guidance from Indigenous colleagues. This approach respects Indigenous Knowledge Holders' time and expertise. You can refer to Appendix C: ILBE Recommended Reading for suggested resources, including MOOCs (massive open online courses). *Teaching Where You are: Weaving Indigenous and Slow Principles and Pedagogies*, by Shannon Leddy and Lorrie Miller (2023), is an excellent resource in this respect.

This is about putting in the work to know more about the land you're on before you start teaching or inviting Elders in to contribute knowledge. Learn names and history of the land and its people and emphasize building relationships. Your connection to Indigenous Knowledge Keepers will be deeper as a result, and learners will connect on a deeper level.

1. Know (and adapt to) the land you teach on

Focus on the specific territory where your educational institution is located. For example, educators in Kjipuktuk (Halifax) should incorporate teachings about Mi'kmaq land, culture and history, the Wabanaki (Dawnland Confederacy) and the Peace and Friendship Treaty, while educators in most of British Columbia need to acknowledge that most land in the province remains unceded. Acknowledge specific Nations and treaties (or the lack thereof), and their implications for shared responsibility.

In addition, tailor lessons to reflect the territory's specific Indigenous Peoples, treaties and histories. For example, in Vancouver, the focus should be on the xʷməθkʷəy̓əm (Musqueam), sel̓íl̓witulh (Tsleil-Waututh), and sḵwx̱wú7mesh (Squamish) Nations.

2. Understand the importance of knowledge protocols

Indigenous Knowledges are rooted in community-specific teachings, histories and practices. Knowledge protocols vary by community, and teachings must be shared with permission and proper acknowledgement. Stories, songs and dances also have specific ownership and cultural contexts. Non-Indigenous educators should be particularly mindful of these complexities and avoid appropriating or simplifying traditions.

Consult and collaborate with local Indigenous communities or Knowledge Holders to ensure accuracy and respect for cultural contexts. Follow the guidelines set out in Truth and Reconciliation for Educators.

3. Respect Indigenous Knowledge Webs

Avoid framing Indigenous Knowledges as additional to western perspectives. Instead, present them as independent, equally valid Knowledge Webs. Understand that these are relational, spiritual, holistic ways of knowing that are tied to the land and its ecosystems.

Starting points for non-Indigenous educators

One of the tenets of Indigenous education is that we are all teachers and learners, regardless of which role we are currently playing. This may be a fundamental mindset shift if you are a non-Indigenous instructor. You may need to reflect on your role and learn to be a teacher and learner at the same time. This reflection can help you develop the humility you will need for this work.

Dabaadendiziwin (Humility) is one of the Seven Grandfather Teachings, also known as the Seven Sacred Teachings—a set of guiding principles that many of us share and practice, including those of us from the Anishinaabe, Ojibwe, Odawa, Chippewa and Potawatomi Nations. These teachings can help guide your teaching practice in this context.

As a non-Indigenous person, you have the responsibility to learn about and engage with place-specific protocols and ways of knowing and being in intentional and respectful ways. You need to understand your roles and responsibilities as a settler on Indigenous lands, regardless of how you came to be here.

1. Understand intentions and context

As a starting point, reflect critically on your knowledge and experience, your institution's intentions and who you are teaching.

- Are you familiar with your learners' cultural backgrounds? Do you have Indigenous learners in your class? You might want to have a conversation with Indigenous learners beforehand to ask how they might prefer to participate.
- Are you the best person to teach this subject?
- Why was no Indigenous person hired for this role?
- What is your institution's history with Indigenous Peoples, and what is the current state of its relationships with local communities?
- Do you have enough experience with Indigenous Peoples, and have you listened to Indigenous voices enough, to teach this subject effectively and respectfully?
- Will you be using content developed by Indigenous Peoples?

These questions are designed to help ensure that, as a non-Indigenous educator, you enter the role with the necessary information and awareness, and can identify whether you need to address systemic issues first.

2. Assess what you know—and what you don't

Engage in your own learning (and unlearning, if need be) processes. Use this toolkit as a starting point while seeking additional resources like books, articles and workshops. Self-reflection is key—critically examine your own biases and positions to avoid reinforcing colonial narratives. For more on this, see *Indigenous Writes: A Guide to First Nations, Métis & Inuit Issues in Canada* by Chelsea Vowel (2016).

3. Apply a decolonizing lens

Take a step back and recognize that the education structures used in most classrooms today are colonial. This fact makes it hard to make space for Indigenous ways and share concepts that might not exist in the western world. For example, ownership is not a concept we use to describe how we connect to the land. Rather, the connection is relational, with an understanding of being from and belonging to the land. The depth and intrinsic nature of this philosophy may be hard to explain using colonial languages and within western frameworks, but it can be exciting and inspiring.

Aim for a decolonizing approach that integrates Indigenous Knowledge Webs and teaching methods into curricula instead. This means recognizing and valuing Indigenous Ways of Knowing and adopting a holistic approach that addresses learners' mental, physical, emotional and spiritual aspects, in line with Indigenous pedagogies (McGill).

Avoid presenting ILBE as a checklist or static practice. Emphasize its dynamic and relational nature, rooted in reciprocity and responsibility to the land and all living beings.

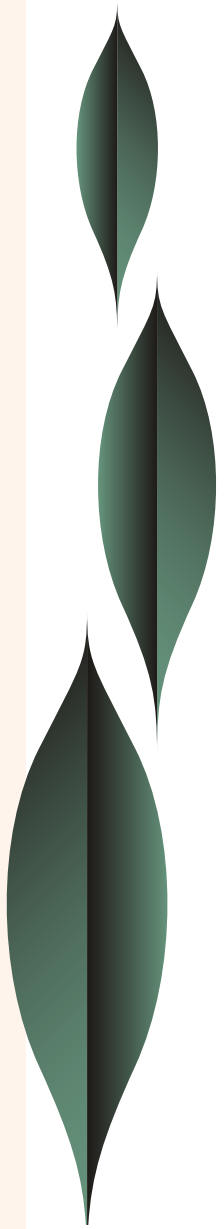
4. Incorporate Truth and Reconciliation

ILBE supports Truth and Reconciliation by teaching learners about colonial histories, residential schools, land theft, and their ongoing impacts on our communities. It empowers learners to develop their own connections to the land and gives them the tools to protect and fight for it. For us, it is a chance to "reclaim and regain" our traditional territories and teachings.

While reconciliation is primarily a settler responsibility, Indigenous efforts to support decolonization can challenge the dominance of western thought. You can help learners to better understand Indigenous histories, cultures and perspectives. Share this information in a way that fosters empathy and respect to support meaningful reconciliation. Encouraging learners to critically reflect on the impacts of colonialism and the importance of land to Indigenous identities can help in acknowledging past injustices and support the reconciliation process (Bridge, 2018).

5. Approach with humility, self-reflection and anti-racism

Reflect on your own positionality and privileges, recognizing how colonial histories have shaped your access to and understanding of education. Be open to acknowledging biases and the need to adapt to Indigenous pedagogies.



By following these guidelines, you can incorporate ILBE in ways that are respectful, authentic and aligned with the values and protocols of the Indigenous communities they aim to honour.

In the classroom

Keeping in mind the values and concepts that have been explained so far, this section offers educators some practical tips and strategies for ILBE. This toolkit is aimed at a broad audience, so the suggestions are not tailored to a particular age group, education level or cultural background. Please adapt them to suit your needs.

1. Using Indigenous frameworks to teach education for sustainable development

See the previous section, "Indigenous frameworks for education for sustainable development," for descriptions of the frameworks.

FRAMEWORK: Two-Eyed Seeing (Etuaptmumk)

In a study of climate change, learners could gather empirical data and learn from Indigenous histories of place (and Indigenous friends and colleagues) about local changes observed over generations. They could then develop combined strategies for adaptation, integrating scientific predictions with Indigenous Knowledges and practices that promote resilience.

FRAMEWORK: The Stone Circle or Celestial Circle

In a project on water conservation, learners could explore the physical aspects (water chemistry, usage), mental aspects (policy and planning), emotional aspects (community values related to water) and spiritual aspects (relationship to water as a life-giving force) to build a multidimensional understanding.

FRAMEWORK: Seasonal Round

Explain how climate change is disrupting seasons, with impacts on culture, livelihoods, languages, how people use the land, their knowledges about the land and their ability to share it. For example, Inuit knowledge is becoming unreliable in some areas because of melting sea ice and the resulting changes to traditional transportation routes, while Kanien'kehá:ka culture is affected by the invasive emerald ash borer beetle, which is having detrimental impacts on trees needed to make traditional baskets.

Left: An example of the art of Kanien'kehá:ka basketry. Fancy Basket by Mary Kawennatakie Adams. Photo included with permission from the Kanien'kehá:ka Onkwawén:na Raotitióhkwa Language and Cultural Center

FRAMEWORK: The Salmon Cycle

The Salmon Cycle can be used to teach learners about ecosystems, food webs and the relationships between land, water and wildlife. Emphasizing the salmon's role in sustaining forest ecosystems—by spawning in rivers, migrating to the ocean and returning again, bringing nutrients inland—provides a powerful example of interconnectedness. Learners could map the salmon's life cycle and influence on local ecosystems, discussing how human activities like dam-building or polluting affect this cycle. They can examine how protecting salmon habitats benefits forests, other wildlife and communities, tying in themes of conservation.

This framework is well-suited for discussions of resource use, overfishing and conservation, and the importance of keystone species. Educators can use it to teach the importance of respecting limits and reciprocity, showing how traditional Indigenous salmon fishing practices reflect sustainable harvesting and the roles that salmon play in the entire ecosystem—from nourishing bears to enriching the soil. (When salmon spawn, many exhaust their energy and die. Bears eat their carcasses and carry them into the forest, where their remnants return nutrients to the trees and ecosystem.)

Framework: The Turtle Calendar

The Turtle Calendar can be used to teach seasonal cycles, plant growth, animal behaviour and sustainable harvesting practices aligned with lunar rhythms. Learners can keep a Turtle Calendar journal, observing natural changes throughout the year in their local environment, such as plant blooms, animal migrations or weather patterns. Each lunar cycle can prompt reflection on environmental changes and the concept of sustainability as a natural rhythm. You can also connect the Turtle Calendar to topics like planting and harvesting, helping learners appreciate the relationship between lunar cycles, biodiversity, water and sustainable agriculture or learn the names of the moon/month in an Indigenous language to better understand seasonal changes.

2. Engaging learners through land acknowledgements

As mentioned in the earlier section on land acknowledgements, it's essential to approach these with care and consideration. They are not meant to be performative, but rather to encourage listeners to reflect on and deepen their relationships with the land. In the classroom setting, there are a number of different ways to help learners do this.

- Use guided imagery that asks learners to think about where they are right now and consider new perspectives.
- Invite learners to try to learn a word from the local language—such as a greeting—or from the territory land (such as a plant, animal or waterway).
- Show what a land acknowledgement looks like and challenge listeners to respond.

3D experiences

There is a lot more to the world than what we can understand with our five senses. Going beyond 2D and 3D means engaging with the land in ways that transcend traditional, surface-level interactions, emphasizing more holistic connections that include physical, emotional, spiritual and cultural dimensions.

Two-D experiences are often limited to visual and textual learning, such as reading about the land or looking at maps and pictures. Three-D experiences involve more interactive and physical engagement, like walking on the land, observing its features, and participating in hands-on activities. Beyond-3D experiences incorporate the spiritual, emotional and relational aspects of learning.

For example:

> "Before we start, let's take a moment to remember that this land we are on today has always been home to Indigenous Peoples. For thousands of years, they have cared for this land, and they continue to live here and share their knowledge. It's important that we honour their history and culture. But just saying these words isn't enough. I want each of us to think: What can we do to learn more about the Indigenous Peoples from this area and to help take care of the land and each other?"[3]

- Emphasize the concept of multiple dimensions—beyond 2D and 3D (see box, left). Beyond-3D experiences involve understanding the land as a living entity with its own spirit, engaging in ceremonies, listening to stories from Elders, recognizing the interconnectedness of all life forms, and acknowledging the cultural and spiritual significance of the land and all beings and elements.
- Engage learners with questions like:
  - Do you know what Indigenous territory you were born on?
  - Whose lands are you on at this moment?
  - What Indigenous communities or populations are present where you live now?
  - How have you come to be in this place?
  - What is your relationship to the land you are on right now?
  - What do these questions mean to you?
  - Why do you think these questions are important?

Depending on the group, a number of learners may not know how to answer these questions. In that case, you may want to engage learners by asking them to find this information together, such as through inquiry circles to share knowledge or by consulting resources like family, libraries, books and the internet. Have sharing circles about what they find. Create task-based learning opportunities to help learners engage actively with the information.

3. Integrating stories

Storytelling is central to Indigenous teaching and learning. Sharing stories helps learners incorporate sustainable practices and the values underlying them. Many of our cultures have various types of stories, such as creation stories, everyday life stories and teaching stories, each serving unique purposes in understanding relationships and transmitting knowledges. For example, in some northern communities, stories of

3 Instead of "Indigenous Peoples" as shown here, use the name of the specific Nation(s) whose land the school is on.

Inuit hunters' experiences are valued by listeners because they can contain critical environmental information that may turn out to be essential for survival (see box, "Stories that sustain life").

Across Canada, we have regional stories that emphasize the importance of giving the land time to rest and rejuvenate to maintain its health. The characters and events may differ, but the common theme is giving the land time to recover. The observance of natural cycles and understanding the land's signals are embedded in knowledges that are passed down from generation to generation through storytelling, reinforcing the symbiotic relationship between people and the environment.

Stories that sustain life

During a hunters' gathering, one hunter was recounting a recent experience. He said, "The ice broke, and I fell into the water and almost didn't make it." He explained:

"When your qamutiq [traditional Inuit sled for travelling on snow and ice] and everything is underwater, you need to quickly move your body in a circle and jump up and work with gravity. The first thing you do is grab the top and push yourself up as if you have a steppingstone underneath. You work with your whole might to jump up."

Later, one of the men who heard this story had the same thing happen to him. He remembered what he had heard and was able to save himself.

Respect protocols around storytelling. Some stories are seasonal or belong to specific families or communities. Always acknowledge the source of a story and seek permission to share it. (If a story has been published and can be verified as written by an Indigenous person, you are welcome to use it.)

4. Building relationships and involving Elders or Knowledge Holders

You can invite Elders or Knowledge Holders to share their perspectives with learners. This can add authenticity and depth to the frameworks and concepts.

Bear in mind that Elders and Knowledge Holders might not always be available, given their many community responsibilities and commitments, and it is important not to exhaust them (or other community members). In addition, providing an honorarium is a way to acknowledge their time, expertise and cultural knowledge. Peer mentors or other Indigenous speakers can be a great solution.

Tools for educators

If you do plan to bring in a guest speaker on a topic, ensure you have adequately prepared your learners, for example by explaining local protocols for engagement. Much meaning can be lost when learners do not recognize what it means to have this person present. They may not know what it means to get these meaningful teachings that were lost to so many because of residential and day schools.

Partnerships with nearby Indigenous communities or organizations can also guide teachings and involve Indigenous voices in the classroom. Building reciprocal relationships with broader Indigenous communities and the land can model relationality for learners, teaching them to view the land as a relative rather than a resource.

Understand that building trust and partnerships with Indigenous communities takes time. Prioritize sustained engagement over one-time initiatives. Continuously seek feedback from Indigenous partners to ensure teachings remain respectful and relevant. Adhere to local protocols when you request their participation and provide honoraria to honour their time and knowledge-sharing.

If you are an ally looking to engage meaningfully with Indigenous Peoples, you must first understand how settlers benefit from the systemic racism that aimed to erase us from this landscape. ILBE must include decolonizing your worldview and engaging with the TRC's Calls to Action meaningfully.

Stories that communicate culture and values

The qulliq, an Inuit oil lamp, symbolizes warmth, light and a way of life in the Arctic.

Traditionally, a hunter would begin his day in the darkness with a qulliq that had been lit by his partner. He would prepare his dog team and set out on a hunting journey, taking very little food or supplies, but always making sure he had the travelling qulliq. He would not be worried because he trusted his dogs and knew the environment intimately. When the sun went down, he would light the qulliq. Returning home eventually, he would share stories from the journey, and the stories would contain knowledge of what to expect from—and how to take care of—the environment.

The story of the qulliq continues to teach the importance of living in harmony with the natural world, knowing it intimately and respecting its cycles. The qulliq provided heat and light during the cold, dark months and served as both a cooking appliance (not just for meals, but to melt ice for drinking water) and a drying appliance. It meant everything to the Inuit and helped them thrive across generations.

The qulliq symbolizes the interconnectedness of all aspects of life—the hunter's skill, his relationship with his family and dogs, his profound knowledge of the environment—and the importance of keeping knowledge alive. It is embraced through ceremony for its historic significance.

5. Using guided imagery

You can help learners connect with the land through guided imagery exercises. Ask them to think about the land they have access to, such as a backyard. Does it contain trees, plants, flowers, rocks? Ask them to imagine being that tree, that plant, that boulder. What do they see from that perspective? How does the world look? How do they feel?

This exercise shifts perspectives from "seeing the land" to "being part of the land," deepening the understanding of relationality. It can also add meaning to a land acknowledgement.

6. Focusing on experiential learning

Emphasize outdoor and hands-on learning where learners can observe natural processes, participate in traditional practices or engage in community-based projects. Field trips, storytelling sessions, journalling and group discussions can also help learners incorporate knowledge.

Create opportunities for learners to engage directly with the land through storytelling, or through practical skills like fire-making or harvesting, led by Indigenous Knowledge Holders. Emphasize relationality and respect for the land as a living entity.

7. Creating and holding spaces

Trauma-informed approaches are important for Indigenous learners and communities engaging with ILBE. To make these spaces as safe as possible, make sure you are informed about historical and ongoing traumas and ensure that Indigenous learners and communities feel supported. This can start with a conversation with Indigenous people involved before a land-based lesson to figure out what is needed in order to offer support. Regardless of background, agreeing to participate and share in a group context takes courage for many participants.

In ILBE contexts, culturally safe spaces are environments where Indigenous learners and knowledge systems are respected, free from judgment or cultural bias, and where connections to land, language, and traditions are honoured and integrated into learning. These protected spaces empower participants to engage authentically, fostering trust, identity and healing. For more on this, see *Ensouling Our Schools* (2018) by Jennifer Katz with Kevin Lamoureux.

By showcasing successes, cultural resilience and the joy inherent in being connected to the land, you can portray the fulsomeness of humanity and avoid "flattening" us into those people who have experienced only trauma.

Tools for educators

More wise practices to consider

- When possible, incorporate words and phrases from Indigenous languages of the territory you are in. Include terms that reflect relationality, such as kinship, reciprocity and stewardship.
- Contextualize ILBE within the history of colonization. Explain how land theft, language silencing and the disruption of ceremonies have shaped Indigenous experiences.
- Highlight modern Indigenous efforts to regain control of Knowledge Webs and reconnect with cultural roots.
- Showcase examples of how Indigenous communities have reclaimed ILBE through initiatives like band-controlled schools.
- Feature examples of sustainable management of Indigenous lands by Indigenous Nations, such as the Indigenous Guardians Program, Indigenous Protected and Conserved Areas, and the Indigenous Leadership Initiative.

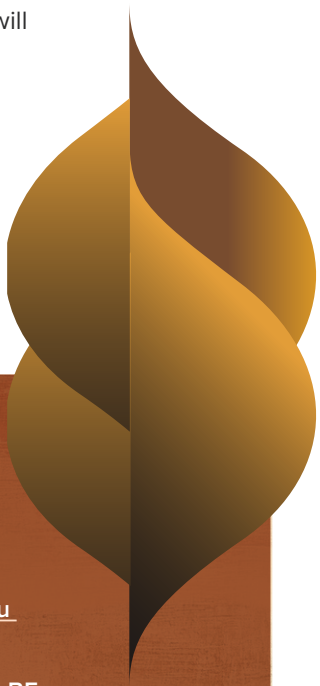
Future vision

Although ILBE is not uniformly on offer at school boards across Canada yet, particularly in urban settings, interest in it is growing. It holds the potential to immerse a new generation of Canadians in a respect-based worldview of the land from their earliest days. It is a positive example of what the future may hold as we try to tackle complex global environmental challenges.

Quality ILBE, offered in accordance with the principles set out in this toolkit, has the potential to:

- increase understanding and importance of the land by connecting youth with Elders who can pass on these knowledges;
- provide opportunity for youth to develop their own connections with the land, which in turn nourishes them spiritually, physically and mentally;
- teach youth how to be good stewards of the land (how to hunt, fish, trap, and monitor the lands, waters and species);
- teach youth about the importance of protecting the land and treating it with respect;
- empower youth to defend their rights and take up their responsibilities related to protecting their environments;
- provide awareness of jobs, educational programs and funding opportunities in the areas of conservation and environmentalism; and
- empower youth to share their knowledge about the land with others, which will increase awareness and understanding.

All of this is a lot to learn, and it can be intimidating. If you are an educator, recognize that it's okay to make mistakes in this work. The important thing is to be humble and apologize when necessary. Beyond reconciliation and building lifelong relationships through this work, it is about changing and restoring our relationships to the land, leading with the heart and embracing values that enable you and your learners to live life with more meaning and connection to the land.



Want to go further?

Learn whose land you live, work and play on.

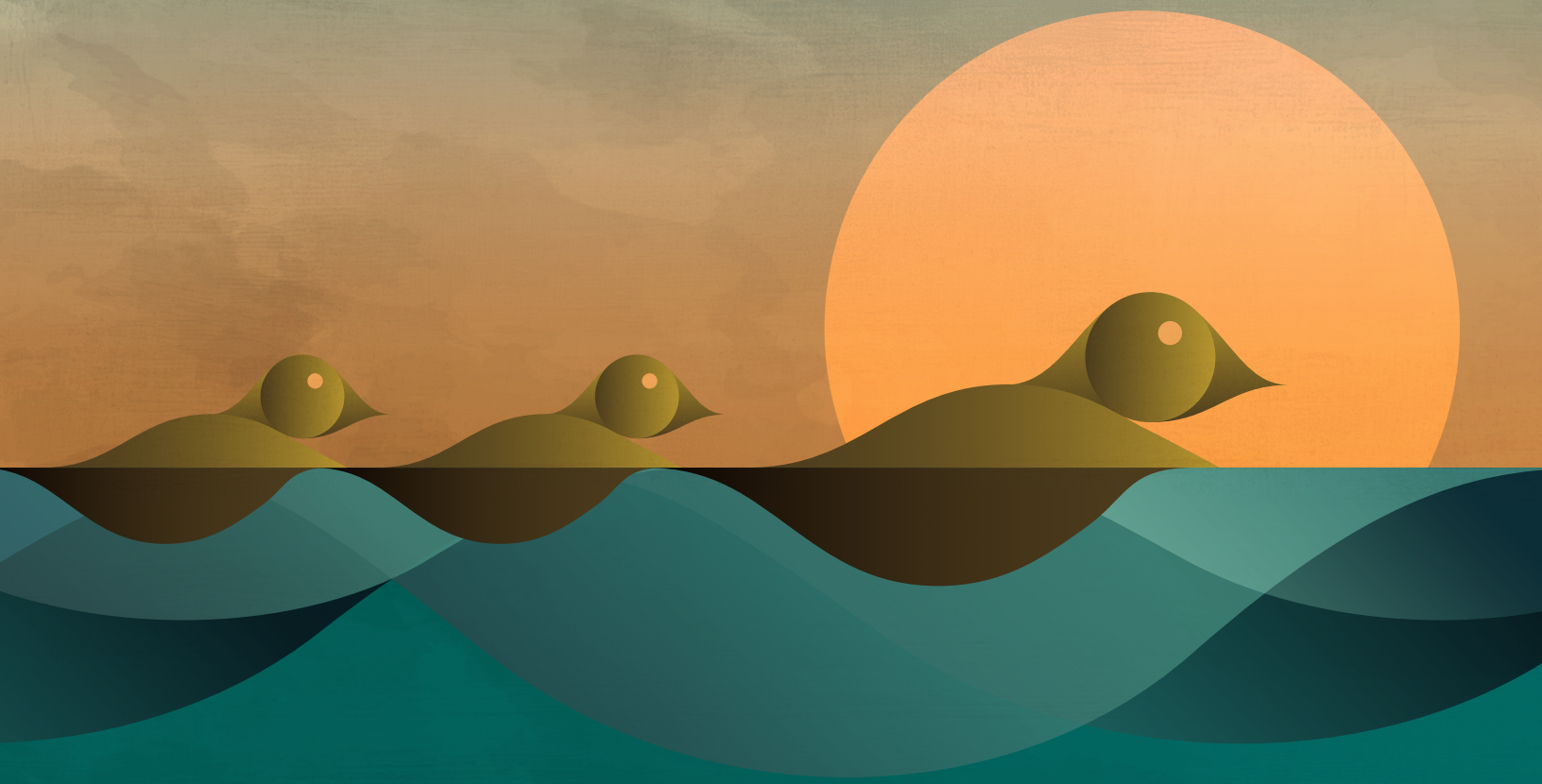
Listen to the languages of the land on which you live.

Discover teaching resources to help you bring ILBE principles into your classroom.

Learn about the history of Indigenous teacher education.

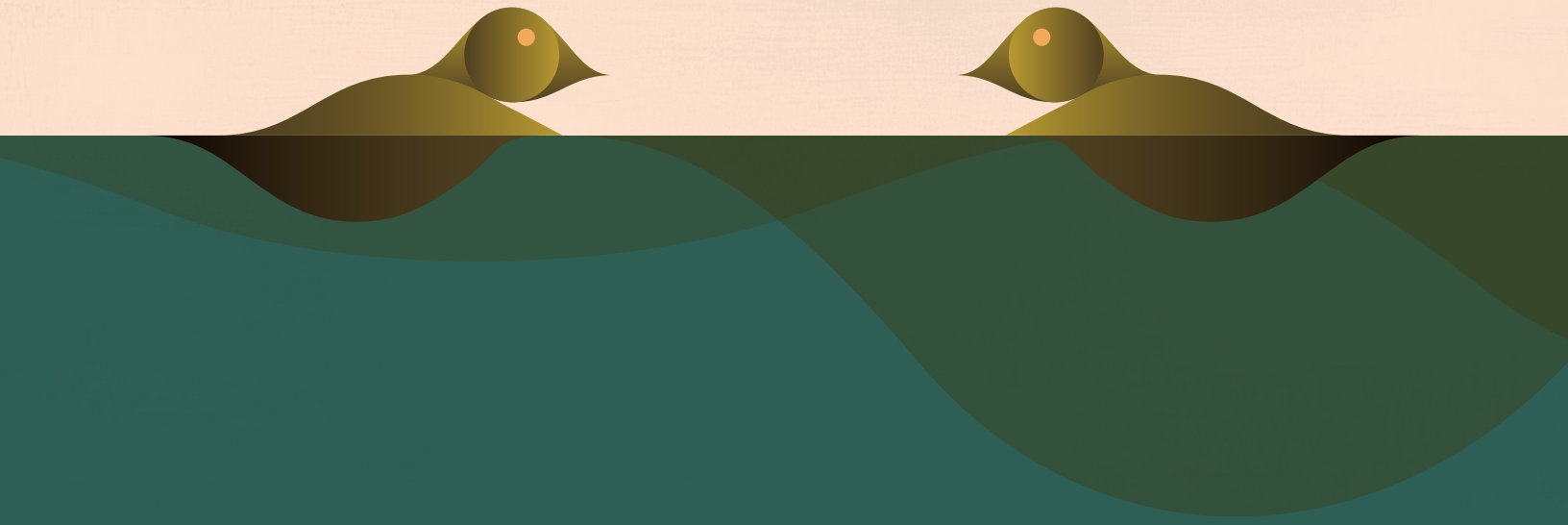
PART 3

Regional Overviews and Promising Practices



Across Canada, provincial and territorial governments are working with Indigenous communities and local school boards to incorporate principles of sustainability into the K–12 learning experience. Through these efforts, students are not simply learning *about* sustainability; they are learning to live and act sustainably. From green school buildings to forward-looking curricula and leadership-building opportunities for youth, ESD is permeating the lives of young people across the country, and students are responding eagerly.

Because there are too many inspiring initiatives to fit into the pages of this toolkit, the examples featured in this section are intended to demonstrate the breadth of ways in which ESD is being integrated across Canada and how these initiatives are transforming education across the country.



Atlantic

Communities in Atlantic Canada live and thrive at the mercy of nature—they benefit from the bounty brought by fisheries and the power generated by rivers, but they find themselves bracing for, recovering from and adapting to increasingly frequent and powerful spring floods and winter storms. Put simply, the region's people understand the role that nature and climate change play in their lives, for better or worse, and are making great efforts to prepare for a resilient future. As such, many jurisdictions in the region are making sustainability a core tenet of their students' education.

Emphasizing sustainability across subjects

New Brunswick launched its *Climate Education Framework* (CEF) in August 2022, just days before record-setting hurricane Fiona battered the province's eastern shore while dumping the brunt of its force on neighbouring Nova Scotia and Prince Edward Island. Across the Atlantic region, Fiona is estimated to have caused more than $660 million in insured damages alone (Insurance Bureau of Canada, 2022). It also led to the deaths of three Canadians. The storm was a warning for New Brunswick, a province that finds itself bracing for stronger and more devastating spring floods and fall gales. Its future demands an all-hands-on-deck approach.

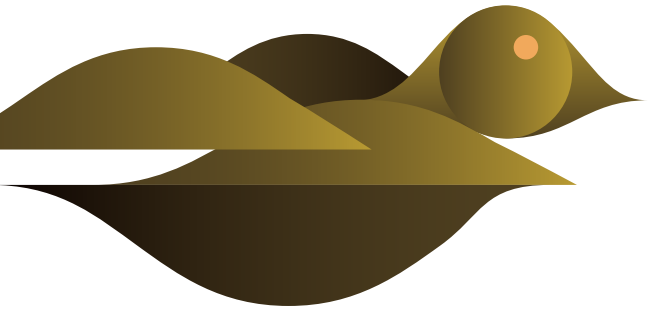
Through structures such as the CEF, not-for-profit organizations like Place aux compétences and the provincial ministry's climate change education support staff, New Brunswick is helping ensure that its current and future educators understand the role they can play in helping ensure a safe and sustainable future for their community, province and world, and empowering students to become climate leaders.

By "embedding climate education throughout the anglophone public education system" (New Brunswick Department of Education, 2022), the CEF aims to highlight for students how principles of sustainability are relevant across subjects and throughout their lives.

Similarly, the province's French-language schools are embedding sustainability and climate change action throughout their work, thanks to networks like ÉducActions Nouveau-Brunswick (in French only). Managed by Place aux compétences, ÉducActions offers funding to schools to take on innovative and entrepreneurial projects. As of 2024, the program is fuelling student-led seed banks, small-scale gardens, and more than 50 other such projects across the province (Place aux compétences, 2024).

New Brunswick's CEF outlines four dimensions to successful climate awareness education:

1. **Cognitive:** teaching students knowledge and thinking skills to enable them to engage in and understand climate change, its effects and how to address it
2. **Socio-emotional:** incorporating social and emotional considerations into the learning environment
3. **Action-oriented:** empowering learners to move beyond discussion about climate change to undertake actions to address it
4. **Justice-focused:** acknowledging that climate injustice is often felt by communities that are subject to other types of discrimination based on social and cultural identity



In practice, these dimensions help students build collaboration skills and empathy at early ages so that, by the time they graduate, they are actively implementing climate solutions in their schools and communities with a variety of partners.

By integrating these principles into daily school lessons, the CEF intends "to empower decision making with the aim for educators and learners to take individual and collective mitigation actions to address climate change" (New Brunswick Department of Education, 2022).

The ideal outcome of the CEF and the work of Place aux compétences is a generation of students who are empowered with the knowledge required to understand the challenges they face due to climate change, the attitudes needed to make a difference, and the skills demanded to execute their plans.

Other initiatives

In Nova Scotia, grade 12 students are offered courses like Global Sustainable Solutions 12, a pilot course launched in 2023 that asks them to:

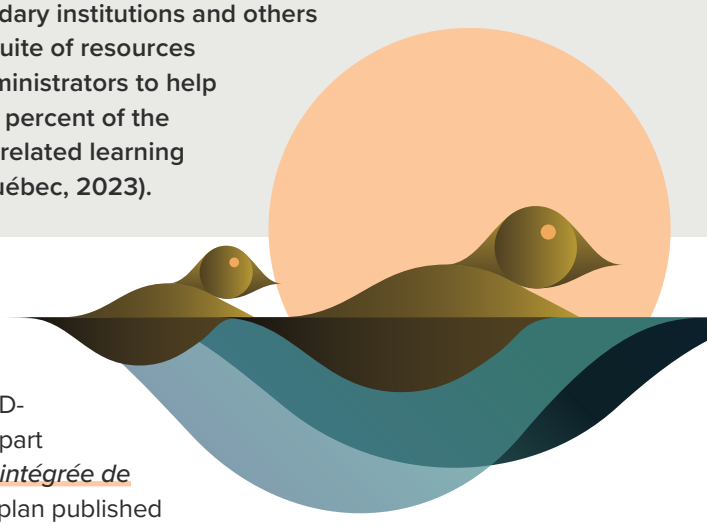
- consider their relationships to the land, one another, their communities and others;
- study and evaluate solutions to issues like water quality and food security;
- explore the relationship between natural disasters, development and resource availability; and
- design a solution to support sustainable urban growth (Nova Scotia Department of Education, 2023).

Another course in that province, Netukulimk 12, explores environmental science through the concept of Two-Eyed Seeing, or "Etuaptmumk," a Mi'kmaq term that refers to learning with the strengths of both Indigenous and Western approaches, for the benefit of all. The course allows students to observe the interconnected relationships they have with the land at a local level and with the world more broadly.

Quebec

Quebec has long been a leader in ESD. The province's teachers' union introduced Brundtland Schools to the province in the 1990s (Centre de services scolaires de Charlevoix). The designation, which indicates that a school implements actions centred around the themes of democracy, sharing, cooperation, equity, solidarity, respect, peace and human rights, quickly became popular. By 2006, nearly 1,000 schools in the province held the designation (Centre de services scolaires de Charlevoix).

Also in 2006, Quebec passed the *Sustainable Development Act*, which included 16 principles that were designed to guide the administration of the province, integrating sustainable development as a lens for policy development and decision making. Nearly two decades on, the government, post-secondary institutions and others have leveraged the act's principles to create a vast suite of resources available to educators and school and education administrators to help bring ESD into the classroom. In 2023, more than 77 percent of the province's teachers reported having integrated ESD-related learning into their classrooms (Ministère de l'Éducation du Québec, 2023).



Building the capacity of educators

From its 16 principles of sustainable development, Quebec has created dozens of robust tools that help teachers create, deploy, evaluate and improve ESD-related learning opportunities for students, in no small part thanks to resources like *Accompagner une démarche intégrée de développement durable en milieu scolaire**, an action plan published by the Université de Laval in 2020 (with the support of the provincial government and other partners) to accelerate the integration of ESD in schools.

The plan recommends schools appoint committees of staff, parents and students to champion the SDGs, then task these committees to audit the school's present state with regards to ESD and the SDGs (Université Laval, 2020). With a baseline established, these leaders will be able to see what actions within their school may already be addressing the SDGs, even unintentionally, and will be able to build from there.

The plan suggests several ESD ideas, including:

- planting, caring for and harvesting a vegetable garden to teach practical skills, collaboration and community participation; and
- using satellite imagery of the school and community to help students learn about their geography and community relationships.

"In all cases," the guide concludes, "[ESD] is about bringing together the efforts of different departments, school and community players, stakeholders and users, to turn our establishments into living laboratories for sustainable development and education [...] in order to consolidate what is already in place and go even further" (Université Laval, 2020).

* Resource available in French only

The guide's authoring partners have continued to create free-to-use resources. The government offers teachers lists of inspirational ESD activities* along with tools to help them assess whether what they're doing directedly responds to (or can be adapted to address) ESD.

Other initiatives

The Université du Québec à Rimouski (UQAR) Chair in Environmental Education and Sustainable Development, introduced in 2021, has a mandate to empower youth when it comes to tackling environmental issues and participating in social and political spheres. The Chair is also responsible for developing new educational activities and engaging teachers in integrating ESD in their classrooms.

Emphasizing ESD as a professional skill

In 2022–2023, the UQAR Chair designed and pitched to the province a new professional competency* in environmental education and sustainable development for teachers, recognizing that much of the workforce felt either ill-equipped to fully bring ESD into their classrooms, or was focused on "small acts" such as recycling personal items and composting apple cores—not necessarily the big-thinking implied by the SDGs. The project is currently in its early launch stage.

"To be able to enable a student to become an active ecocitizen," the proposal says, "a teacher must themselves understand the different facets of socio-ecological challenges humanity faces [...] and understand how these are related" (UQAR, 2024). It's no small task, to steward a generation of community leaders and engaged citizens.

The proposed professional competency aligns with the government's own *2023 – 2028 Sustainable Development in Education Action Plan,* which states that "Education must not simply respond to current needs in the job market; rather, education should allow individuals to develop knowledge and skills and ultimately form well-rounded, engaged and responsible citizens" (Ministère de l'Éducation du Québec, 2023).

Universities in Quebec are helping build teachers' skills in this regard. At the Université du Québec à Montréal, students can take courses on environmental education. UQAR and the Université de Sherbrooke offer comparable courses, as well as courses on education and sustainable development. Meanwhile, the Université du Québec à Montréal's Centre de recherche en éducation et de formation relatives à l'environnement et à l'écocitoyenneté (Centr'ERE)* works to help educators sift through the latest research, find local partners and new avenues of inspiration.

Ontario

Ontario is Canada's largest province by population and is expected to welcome more people over the coming decades. To help prepare for this projected wave of learners, many of the province's faculties of education are embedding environmental and sustainability education to equip teachers with the knowledge and skills needed to develop empowered and conscientious global citizens.

Integrating ESD in teacher education

In 2006, the Ontario Ministry of Education established an Environmental Education in Ontario Working Group which released a report entitled *Shaping our Schools, Shaping Our Future*. The report put forward 32 recommendations to help advance environmental education in Ontario in K–12 schools (WGEE, 2007). The ministry followed up in 2009 with *Acting Today, Shaping Tomorrow*, an environmental policy framework which included a vision for K–12 environmental education that encouraged teachers of all grades to integrate environmental education and an understanding and respect for Indigenous Ways of Knowing throughout the curriculum (Ontario Ministry of Education, 2009).

Teacher education programs followed up on the province's momentum. In 2013, teacher educators gathered for a roundtable at the Ontario Institute for Studies in Education (OISE), at the University of Toronto, and transferred their knowledge into the *Deepening Environmental Education in Teacher Education Resource,* a guide which synthesized the findings of the roundtable and shared vignettes of environmental learning in faculties of education across the province (Inwood, H. and Jagger, S., 2014). This ultimately led to the creation of the Environmental & Sustainability Education in Teacher Education (ESE-TE) national network in 2017, which has since led research, programming and advocacy work, impacting ESD across Canada.

Pre-service teacher education programs in Ontario have taken up the task by better embedding ESD into their curricular and co-curricular offerings in a variety of ways.

All second-year teacher candidates at Trent University take an inquiry-led core course, called Indigenous, Environmental, and Sustainability Education, that introduces them to concepts sustainable development, active citizenship, self-understanding, and social and ecological justice from both western and Indigenous perspectives. It also offers them opportunities to engage in alternative practicums focused on Indigenous Ways of Knowing, or in educational gardening.

At the University of Toronto, OISE offers its pre-service teachers both core and elective courses in ESD, along with a broad set of co-curricular offerings (such as conferences, webinars and workshops) in collaboration with the Toronto District School Board. At Queen's University, pre-service teachers seeking an education devoted to land-based learning can look to the school's outdoor and experiential education program. Lakehead University requires their pre-service teachers to take a mandatory course in environmental education and another in Indigenous education. Lakehead also offers an elective in climate change education—one of the very few pre-service programs to do so in Canada.

These programs work in partnership with community organizations across the province, such as Learning for a Sustainable Future (LSF), Evergreen, Green Learning and EcoSparks, to ensure that pre-service and in-service teachers are aware of the rich offerings by these organizations as well.

This movement is bound to grow, too; in 2023, the Ontario College of Teachers mandated the inclusion of environmental learning, ecojustice education and climate action into all pre-service teacher education programs through its revised accreditation guidelines (Ontario College of Teachers, 2023), ensuring the presence of ESD in Ontario teacher education programs moving forward.

Other initiatives

The Toronto District School Board (TDSB) has been a leader in environmental learning since 2002, when it established the first EcoSchools program in the province (which is now a national program offered by EcoSchools Canada). The TDSB has also offered extensive professional learning in ESD for its in-service teachers, in alignment with its ongoing dedication to climate action, including adding trees, bike racks, water-bottle filling stations and solar panels to its school properties.

Evergreen, a national non-profit organization located in Ontario, dedicated to making Canadian cities livable, supports environmental learning in multiple ways, including by supporting schoolyard greening across the country. Its building, the Brickworks, is Toronto's environmental community centre, offering learning about sustainability to all members of the public through markets, gardens, exhibits and conferences. Its school programs help both students and their teachers to learn more about ESE, from nature-based learning to sustainable city-building.

Many of Ontario's 26 conservation authorities—bodies with the mandate to "protect people and property from flooding and other natural disasters" while conserving the natural resources of watersheds for their economic, social and environmental benefits—also offer engaging education opportunities (Conservation Ontario). The Nottawasaga Valley Conservation Authority, for instance, runs the Tiffin Nature School. The school, open to children between 2.5 and 10 years old, offers "a holistic education experience that goes beyond the classroom," enabling students may develop confidence in their skills and familiarity with the natural world while simultaneously "gaining a richer understanding of core [curriculum] subjects through these immersion nature-based experiences" (Nottawasaga Valley Conservation Authority).

Elsewhere, the Ganaraska Conservation Authority offers invites students and school groups on field trips to learn on the land, recognizing that, through education, "we may safeguard our future and reach our fullest potential" (Ganaraska Conservation).

Prairies

Climate change is hitting Canada's prairie provinces hard. Years-long droughts are hurting the region's staple agricultural sectors, and climate change-fuelled wildfires and flooding events put communities on alert year after year. The good news is that youth engagement to address these issues is accelerating, too.

Empowering youth to make change in their school communities

For over a decade, the Alberta Council for Environmental Education (ACEE) has been gathering students together through its Alberta Youth Leaders for Environmental Education (AYLEE) program. Participants connect with each other to discuss their concerns and thoughts on climate change and champion solutions in their communities. ACEE has reported year-over-year growth in participation in AYLEE, as well in other programs it supports.

In 2022, for instance, it reported 248 "EcoSchool Actions"—individual school actions like campus greening initiatives. In 2023, it reported 358 actions (ACEE, 2023). Through ACEE's support, students in Alberta are transforming ecoanxiety into action.

In 2020, AYLEE student leaders surveyed their peers on the state of climate change education and produced a white paper calling on actors in education, including government, teachers and students, to improve discussion of climate change and energy issues.

"Youth of Alberta must also actively champion and participate in bringing about these changes" (AYLEE), the 2020 white paper reads. "By investing in environmental initiatives now, and ensuring that students are engaged in every step of the process, we can create a generation that not only has the knowledge and skills, but has also been equipped with the tools to be a generation of leaders."

Other initiatives

Twenty years of ESD in Manitoba

In 2004, Manitoba labelled ESD a top priority in its *Education for Sustainability Action Plan*, setting out a vision of a globally engaged student body that would "contribute to social, environmental, and economic well-being, and an equitable quality of life for all, now and in the future" (Manitoba Education and Early Childhood Learning, 2024). The provincial ministry of education followed up in 2009 by embedding sustainability into its own mission statement.

The province has routinely backed up its vision with action, too. It was the first province in Canada to have a sustainable development coordinator in its ministry of education, charged with supporting the implementation of ESD practices throughout its schools. It continues to foster innovative partnerships with not-for-profit organizations, other levels of government and ESD experts to offer its educators the latest resources so that they can work with their students to integrate ESD throughout student life and learning.

Meewasin Valley education programs

The Meewasin Valley Authority (Meewasin) is a non-profit organization mandated to ensure the health of the river valley that slices through Saskatchewan's largest city, Saskatoon. Meewasin invites students to engage in their stewardship through a variety of on the land educational programs that teach students about the land and their relationships with it. Meewasin also collaborates with local school districts to develop curriculum-linked resources that frame its work within the contexts of Indigenous Ways of Knowing and societal impact.

The North

Yukon, the Northwest Territories and Nunavut are lands subject to drastic change. In the territories, where food security and community safety are gravely affected by even the smallest of temperature changes, youth are taking up the mantle to organize and demand changes that will help ensure a thriving future for them and generations to come.

Across the region, populations are generally younger—and growing faster—than anywhere else in Canada. As such, youth are taking it upon themselves to have a say in decisions today that will affect them tomorrow.

Rebalancing relationships for better education

In 2020, after Yukon First Nations signed a Climate Change Emergency Declaration, their leadership determined that an action plan should be youth-led; "It is their future at stake, and they will inherit the decisions made now," (YFNCAF, 2023).

The resulting Yukon First Nations Climate Action Fellowship, made up of 13 First Nations youth, went on to produce *Reconnection Vision*, an interactive report created by a youth working group that audits the root cause of climate change and outlines an all-encompassing path forward to healing people's relationships with the land and each other. Its authors call it a "societal shift guide," noting that the changes they seek resonate far beyond the classroom.

"Only by addressing the root cause of climate change—our disconnected relationships with ourselves, each other, and the Land—can we change the trajectory for future generations" (YFNCAF, 2023), the authors write. They argue that even well-intentioned efforts, like cutting carbon emissions, are conceived only to address or mitigate the symptoms of the challenge and are narrow in their impacts. By advocating for a more holistic shift in societal mindsets—from one of extraction to balance, from transaction to collaboration—climate and other societal issues tied to the SDGs will be addressed.

While the territory does not have a specific First Nations education act (which was one of *Reconnection Vision*'s recommendations), it does now have a First Nations School Board (FNSB), launched in 2022, which has enabled local First Nations to take shared authority of the public school system. Though they follow the British Columbia curriculum, the 11 FNSB schools also "tailor programming, lesson delivery and assessment methodology to reflect Yukon First Nations worldviews" (First Nation School Board, 2024a)—the sorts of worldviews enshrined in *Reconnection Vision.*

The FNSB's mandate includes supporting land-based learning, promoting Elder and community involvement, and amplifying the voices of students.

Responding to the latter, in 2024, the FNSB hired a student voice coordinator whose role is to "empower youth across FNSB schools to share their ideas, concerns and aspirations" with district decision-makers. "I strongly believe that the youth of today are going to change the way the world works, and I am so excited to help empower them to do so" (FNSB, 2024b), the student voice coordinator said in an FNSB newsletter in 2024.

Other initiatives

Youth voices in policy

Youth councils on climate change have an active voice across the north. Each territory has its own such panel of students and young adults, and Indigenous government bodies have also created their own.

The Yukon Youth Panel on Climate Change, for example, has a mandate to provide advice and youth perspectives to the territorial government on "climate change, energy and green economy matters that reflect the diversity of Yukon youth." The panel is made up of high schoolers and recent graduates from diverse communities around the territory. Among other recommendations made to the Yukon government, the panel asked the territory to "ensure climate change awareness and preparedness is implemented into the curriculum for all courses in every grade," because, as one panellist explained, "you can't know how to take care of something if you don't know why it's important" (Yukon Youth Panel on Climate Change, 2021).

Indigenous-focused curricula in The Northwest Territories

The Northwest Territories offers its students two curricula based around the prominent Indigenous cultures in the region. Dene Kede encompasses the worldview of five Dene Nations and teaches students about the Spiritual World, the land, the self and the People. Inuuqatigiit, which means "Inuit to Inuit," or "people to people," implies a unity between people. Both curricula, integrated from kindergarten through high school, offer students cultural lenses through which to view their world.

Makimautiksat Youth Camp in Nunavut

Makimautiksat Youth Camp was created to directly support individual adolescents' health and well-being, but its principles align directly with the SDGs and support the empowerment of those individuals. It is based around eight Ujarait (rocks), which together are meant to establish a solid foundation of skills and knowledge for young people to build their lives, explains a report on the camp. From crafting and creativity to land stewardship, self-discovery, community and understanding healthy relationships, these foundations help prepare adolescents for adulthood. This reflects the name of the program itself, Makimautiksat, which can be interpreted as "building a solid foundation within oneself" (Qaujigiartiit Health Research Centre, 2015).

British Columbia

Nature nurtures people in British Columbia. Throughout the province, it supports livelihoods and recreational opportunities, and, for many people, forms a part of their regional identity. It is also one of people's most tangible opportunities to observe the impacts of climate change.

From mild-weathered Victoria to the harsher areas in the province's north, educators and students are connecting with nature in outdoor classrooms year-round.

Transforming environmental learning

"Education about, in and for the environment provides students with opportunities to learn about the functioning of natural systems, to identify their beliefs and opinions, consider a range of views, and ultimately make informed and responsible choices for themselves, their families and communities," reads a 2007 British Columbia Ministry of Education resource for environmental learning. Environmental education offers students and teachers a direct link to the natural world and forces them to observe daily changes in their environment and draw lessons from it. And, in British Columbia, this has been supported by government, post-secondary institutions and individual school districts for decades.

A soon-to-be published update to this framework, *What is Environmental Learning?* (in press), augments this earlier focus on experiential learning by highlighting the importance of local and Indigenous Knowledge in the interpretation of environmental concepts. Using strategies such as Two-Eyed Seeing, inquiry and experiential learning, British Columbia's environmental learning foregrounds climate change and other environmental issues in the context of diverse communities and ecologies across the province.

In Langley, east of Vancouver, students from kindergarten through grade 5 can spend more than half their school week outside in the district's in-demand Langley Environmental Awareness Program, exploring parks and gaining a greater appreciation for the nature around them.

On Vancouver Island's west coast, high school students at Alberni District Secondary School can go outside to learn skills like first aid and shelter building alongside environmental stewardship, leadership development and land-based cultural learning.

In qathet School District, on the mainland coast, teachers can take inspiration from a district-built library of outdoor learning opportunities for their students. The learning programs range from bird identification to art projects and history lessons, and many of the programs were designed in partnership with community groups.

In British Columbia, 96 percent of surveyed educators told non-profit Learning for a Sustainable Future that systemic change is required to address climate challenges (LSF, 2023). With support from governments and local communities, their students are well on their way.

Other initiatives

Training environmental educators

Several British Columbia universities are recognizing the demand for and importance of teachers who can tackle climate change topics and engage their students with nature.

The University of British Columbia offers a diploma in outdoor environmental education with courses on pedagogy, healthy living, outdoor skills, Indigenous studies and environmental education, and also offers an Education for Sustainability cohort as part of its teacher education program. This cohort provides teacher candidates opportunities to weave the 17 SDGs into their practicum planning by connecting curriculum to land- and place-based experiences. Simon Fraser University (SFU) has been running its environmental education course for over 50 years. It features field schools in Howe Sound and Haida Gwaii, and is paired with a Master's program in ecological education.

The Institute for Environmental Learning (IEL), which is hosted at SFU, is a cutting-edge educational research group working towards a sustainable future for British Columbia. With a mission to create and foster a research and education network that will support a sustainable future for British Columbia, the IEL develops and supports environmental learning research in the province's communities, schools and post-secondary institutions. The IEL and has been chartered by the UN University as a Regional Centre of Expertise in ESD.

The University of Northern British Columbia has partnered with the IEL and LSF to deliver a Climate Education in Teacher Education research project. Beyond examining how teachers in northern British Columbia can help respond to the climate emergency, this partnership also offers a free, public workshop series on climate change education. This series touches on the health impacts of climate change, relevant curriculum development and other issues that can help current teachers.

PART 4

Case Studies

To bring readers a more concrete sense of the kinds of ILBE and ESD programs that exist across Canada, CCUNESCO has prepared 12 case studies: six ILBE ones and six ESD ones.

These are by no means an exhaustive set of examples. Among the many interesting ILBE and ESD programs in Canada that align with UNESCO's path to transforming education, CCUNESCO prioritized those that demonstrated long-term sustainability, scalability and adaptability, diversity and inclusivity, and connections to the SDGs. Programs were also chosen for their ability to represent a diverse cross-section of regions and purposes—such as empowering and mobilizing youth, transforming learning environments, building educators' capacities, offering immersion in Indigenous languages, or offering teacher training for ILBE.

The case studies set out how and why the programs were conceived and launched, and describe their objectives, key activities, progress, challenges and successes to date.

They are not included in this toolkit but are available online. CCUNESCO intends to add to the collection over time. The case studies listed below are included here because they were available at the time of publishing.

Indigenous Land-based Education programs

- Dechinta Centre for Research and Learning
- Pirurvik Centre
- Otsitsa'shon'a Indigenous Land-based Teacher Education Cohort, Ontario Institute for Studies in Education
- Benaadizig-yaat Gchitwaa Waaseyaa-teg/Gajihsda gwe:ni:ye:geh (People's Place of the Sacred Light), Ontario Institute for Studies in Education
- SENĆOŦEN Survival School, WSÁNEĆ School Board
- Land and Water: Indigenous Land-Based Education Program, University of Manitoba

Other Education for Sustainable Development programs

- Redberry Lake Biosphere Region
- Learning for a Sustainable Future
- UNESCO Associated Schools in Canada
- Environment & Sustainability Education in Teacher Education
- Education for Sustainable Development in Manitoba
- Call for Climate Change Education Projects, the Quebec Ministry of Education

Appendix A: Key milestones in ESD in Canada

The table below documents some of Canada's key ESD milestones and contributions going back decades and beyond.

Time immemorial on Turtle Island	Indigenous land-based education has been present in this land since time immemorial.
1988	The National Roundtable on the Environment and the Economy is created and tasked with establishing a Task Force on Education, with a strong orientation towards including young people more directly in decision making.
1991	The National Roundtable on the Environment and the Economy establishes Learning for a Sustainable Future (LSF) as a Canadian charity, with a mandate to incorporate sustainable development into education policy across all provinces and territories. See LSF case study for details.
1991	The Halifax Declaration commits Canadian university leadership to addressing sustainable development within academic teaching research and throughout universities' operations.
1992	Toronto hosts the World Congress for Education and Communication on Environment and Development (ECO-ED), a major international event in which thousands participate in knowledge exchanges about new directions for sustainability education.
1993	ECO-ED leads to the creation of the Canadian Network for Environmental Education and Communication.
1993	The *Établissements Verts Brundtland* movement begins. Now known as Mouvement ACTES (Actions Collectives en Transition Environnementale et Sociale), over 900 institutions participate in Quebec, as of 2024.
1997	Montréal hosts the international francophone forum: Planet'ERE de l'Éducation relative à l'environnement dans une perspective de développement durable.
2000	The Council of Ministers of Education, Canada (CMEC), publishes its foundation report, *Educating for Sustainability: The Status of Sustainable Development Education in Canada,* under the leadership of Manitoba Education, Training and Youth.
2001	CCUNESCO establishes the UNESCO Associated Schools Network in Canada.
2003	Regional Centres of Expertise on ESD begin to be established as part of the UN's Education for Sustainable Development Project.
2005	CMEC is represented on the UN Economic Commission for Europe Steering Committee on Education for Sustainable Development.
2005, 2006	LSF, Manitoba Education and Environment Canada initiate a Canada-wide program of work on the decade, including the formation of multi-stakeholder ESD working groups in each province. This leads to the establishment of ESD Canada, a council of ESD experts, hosted by LSF.
2006	CMEC publishes *United Nations Decade of Education for Sustainable Development (2005–2014): Canada's response to the UNESCO Questionnaire*.
2007	CMEC publishes its *Report to UN Economic Commission for Europe and UNESCO on Indicators of Education for Sustainable Development: Report for Canada.*

2008	CMEC releases *Learn Canada 2020,* with ESD as a core activity.
2008	CMEC establishes the Education for Sustainable Development Working Group.
2009	The 5th World Environmental Education Congress, held in Montréal, gives nearly 2,200 stakeholders from 106 countries the opportunity to join forces to explore new ways by which the world can live more sustainably.
2009	CMEC is represented on the UNECE Expert Group on Competences in Education for Sustainable Development.
2005–2014	LSF coordinates the National ESD Expert Council.
2012	Dr. Marcia McKenzie, University of Saskatchewan, establishes the Sustainability and Education Policy Network in Canada to conduct large-scale, cross-national examinations of sustainability policies and practices.
2012	CMEC publishes *Education for sustainable development in Canadian faculties of education*.
2016	Trent University hosts National Roundtable on Environmental and Sustainability Education in Teacher Education.
2017	CCUNESCO hosts the UNESCO Week for Peace and Sustainable Development: The role of education, in Ottawa.
2017	Vancouver hosts the 9th World Environmental Education Congress, focusing on the interface of culture and environment.
2017	Environmental and Sustainability Education in Teacher Education Standing Committee is established.
2020	The Canadian Network for Environmental Education and Communication launch a research project: Monitoring and Evaluation of Climate Communication and Education.
2022	Association of Canadian Deans of Education approve an Accord on Education for a Sustainable Future.
2022	Montréal hosts the COP15 UN Biodiversity Conference.
2023	National Roundtable on Climate Change Education in Teacher Education meets to assess current context and put forward suggestions on how faculties of education can better embed in teacher education.
2023	Environment and Climate Change Canada (ECCC) launches Environmental Literacy fund to support initiatives that will help develop knowledge, skills and capacity among young Canadians to enhance environmental literacy.
2024	Rideau Hall Foundation and Canadian Geographic partner to celebrate Indigenous teacher education programs as crucial factors to transforming Canada's education landscape.
2024	Quebec and Canada launch ESD for 2030 country initiatives.
2024	ECC Canada launches a national environmental education framework.

Source for 1988–2010 milestones: Council of Ministers of Education, Canada, 2010. Later entries added by CCUNESCO.

Appendix B: ILBE related terminology and historical considerations

Educators must take care to understand the weight of words. The disruption caused by colonization, including the theft of land and silencing of languages, is central to understanding the need for reconciliation. Efforts to regain control of Indigenous Knowledge Webs and practices, such as band-controlled schools, are part of this ongoing journey.

Toponymy—the study of placenames, their origins, meanings and usages—is an important consideration in this context. Indigenous placenames are descriptive and relational, and speak to our connections to our lands, often reflecting the history, culture and linguistic traditions of those who coined them. These names figure significantly in Indigenous land-based education and our history in Canada because of our erasure, which many of us view as a form of colonial violence that did irreparable harms. Restoring Indigenous place names is a way to reconnect us to their roots and lands and recognize our continued presence.

Other terms may come up in Indigenous land-based education that require context so students can properly understand their evolution and current meanings. Depending on who the students are, educators may find themselves needing to explain words like Elder, self-government, self-determination, sovereignty, Treaty and more, especially when students are non-Indigenous. There are many resources to help you find the right terminology. Avoid derogatory terms. When uncertain, ask for clarification on how a Nation or community refers to itself.

When you can, be specific and name the Nation or community rather than using a broad term like “Indigenous.” Don’t hesitate to ask questions in a respectful way, especially if you need help with pronunciation.

It helps to know more about the policies, acts and laws that disconnected Indigenous Peoples from their lands. This section offers a brief history.

Legislation aimed at assimilation

An act created in 1857—the Gradual Civilization Act—aimed to assimilate Indigenous Peoples into settler society by pressuring them to abandon their cultural identities and traditions.[1] Few Indigenous Peoples enfranchised voluntarily because it required giving up their status, culture and community ties. The policy reflected the colonial government’s strategy to diminish Indigenous populations’ cultural and legal distinctiveness and rights.

In 1869, the Gradual Enfranchisement Act expanded on the Gradual Civilization Act introducing further controls over Indigenous governance.[2] It put forward the concept of “status Indians” to legally define who qualified as Indigenous under Canadian law, with the goal of quelling this category over time. The act had the overall effect of tightening government control over Indigenous Peoples and communities while further undermining their self-determination and cultural practices.

Finally, the Indian Act (1876) consolidated and expanded the provisions of the two previous acts to create a comprehensive legal framework governing all aspects of Indigenous life in Canada.[3] It codified the concept of “status Indians” and who could qualify, excluding Métis and many others. It imposed federal authority over nearly every aspect of Indigenous life, including land use, education, governance and cultural practices. It enforced policies of assimilation by restricting Indigenous ceremonies, languages and governance systems, and continued the practice of enfranchisement, both voluntary and involuntary, to erode Indigenous status. Ultimately, the Indian Act became the cornerstone of colonial control over Indigenous Peoples in Canada. Its legacy continues to affect our communities across Canada.

1 See https://www.thecanadianencyclopedia.ca/en/article/gradual-civilization-act

2 See https://www.thecanadianencyclopedia.ca/en/article/gradual-enfranchisement-act

3 See https://indigenousfoundations.arts.ubc.ca/the_indian_act/

Why "We Are All Treaty People"

A variety of treaties were negotiated prior to or alongside the development of these sets of colonial legislation. These were Nation-to-Nation agreements that originally recognized Indigenous sovereignty. However, the government has largely failed to honour these treaty agreements and has often acted in bad faith, undermining our sovereignty and rights.

Today, the phrase "We Are All Treaty People" underscores the collective responsibility of all Canadians—Indigenous and non-Indigenous—to uphold the treaties that form the foundational agreements of the country.[4] It has been adopted by educators, historians and organizations to foster a broader understanding of Canada's treaty relationships.

Made between First Nations and the Crown, these treaties were living agreements designed to foster mutual respect, reciprocity and coexistence. From our perspective, they represent sacred commitments rooted in their relationship with the land, emphasizing shared stewardship and interdependence.

Modern treaties, often referred to as comprehensive land claim agreements, have been negotiated in areas where historical treaties were absent, particularly in northern and western Canada. These address issues of land ownership, governance, resource management and self-determination, reflecting Indigenous Peoples' rights and sovereignty in the face of colonial impositions. Examples include the Nisga'a Treaty (1998) and the agreements that led to the creation of Nunavut in 1999.[5] Modern treaties continue to evolve as frameworks for reconciliation and partnership, recognizing Indigenous jurisdiction and paving the way for self-governance.

However, not all Indigenous lands in Canada are covered by treaties. Non-Treaty lands remain subject to ongoing legal disputes and negotiations. Indigenous Nations in these areas assert sovereignty and title to their ancestral territories based on their inherent rights and longstanding relationships with the land.

Non-Indigenous Canadians are treaty beneficiaries because the treaties enabled settlement and access to resources on Indigenous lands while promising protections and respect for Indigenous ways of life. Recognizing this shared legacy means understanding treaties—not only as legal agreements but as frameworks for ethical relationships, self-determination and ongoing dialogue.

Ultimately, the idea that "We Are All Treaty People" reminds Canadians that the treaties' principles, along with the acknowledgement of non-treaty lands and modern agreements, continue to guide moral and social obligations toward reconciliation and partnership.

Today's Land Back Movement

In the modern context, the Land Back Movement is an Indigenous-led campaign advocating for the reclamation of Indigenous lands, sovereignty and rights that were taken through colonization and 31 unjust treaties.[6] It seeks to restore Indigenous control of traditional territories so communities can reconnect with the land spiritually, culturally and politically. It addresses systemic issues, such as environmental degradation, land mismanagement, and the marginalization of Indigenous governance systems.

Key objectives of the movement include:

- Returning land to Indigenous stewardship
- Restoring self-determination and cultural practices tied to the land
- Addressing historical injustices, including broken treaties and forced displacements

4 See https://www.canadashistory.ca/CNHS/media/CNHS/cnhs-media/PDFs%20and%20Powerpoints/EN/CHDig2018Treaties.pdf

5 See https://www.rcaanc-cirnac.gc.ca/eng/1573225148041/1573225175098

6 See https://davidsuzuki.org/what-you-can-do/what-is-land-back/

Appendix C: ILBE recommended reading

CAMH. (2022). "Guidance for Honouring the Land and Ancestors Through Land Acknowledgements." Centre for Addiction and Mental Health.

A resource for those looking to better understand the meaning behind land acknowledgements and how to develop and deliver them with purpose and intention.

Canada's History. (2018). "Treaties and the Treaty Relationship."

Explores the history of treaties and the treaty relationship, and is an important first step in sharing First Nations perspectives.

Canadian Commission for UNESCO. (2021). "Land as Teacher: Understanding Indigenous land-based education."

An article that explains what ILBE is and is not, including its implications for science, culture, politics, language, environmental stewardship, land rights, responsibilities, reconciliation and the future of the planet.

Cherpako, D. (2019). "Making Indigenous-Led Education a Public Policy Priority: The Benefits of Land-Based Education and Programming." Samuel Centre for Social Connectedness.

Characterizes ILBE as an environmentally focused approach to education by first recognizing the deep, physical, mental and spiritual connection to the land that is a part of Indigenous cultures.

First Peoples' Cultural Council. *FirstVoices*.

This website is an internationally recognized online platform for Indigenous communities to share and promote their languages, oral cultures and linguistic histories. It provides state-of-the-art technologies, training and technical support to community language champions. It can be a great resource for someone looking for help with pronunciation of Indigenous words.

Katz, Jennifer, with Kevin Lamoureux. (2018). *Ensouling Our Schools: A Universally Designed Framework for Mental Health, Well-Being, and Reconciliation*. Winnipeg: Portage & Main Press.

Kevin Lamoureux contributes his expertise regarding Indigenous approaches to mental and spiritual health that benefit all learners and address the Truth and Reconciliation Commission's Calls to Action.

King, A.L., O'Reilly, K., and Lewis, P. (2024). *Unsettling education: Decolonizing and Indigenizing the Land*. Toronto: Canadian Scholars.

Tackles "unsettling" as an emerging field of study that calls for settlers to follow Indigenous leadership and relationality and work toward disrupting the colonial reality through their everyday lives. Bringing together Indigenous and non-Indigenous scholars and activists, Unsettling Education considers how we can reconcile and transcend ongoing settler colonialism.

Learn Alberta. *Walking Together: First Nations, Métis and Inuit Perspectives in Curriculum*. Government of Alberta.

This is an excerpt from a teaching guide titled Aboriginal Perspectives, which provides a unique approach to teaching First Nations, Métis, and Inuit history and culture. Reviewed by Elders across Alberta, the materials feature first-hand stories, detailed maps, timelines, discussion activities and contemporary and historical profiles to encourage reflection, understanding and engagement with Indigenous Knowledge and traditions.

Leddy, S. and Miller, L. (2023). *Teaching Where You are: Weaving Indigenous and Slow Principles and Pedagogies*. Toronto: University of Toronto Press.

This guide to help non-Indigenous educators to work in good ways with Indigenous learners provides resources across curricular areas to support all learners. Two seasoned educators, one Indigenous and one settler, bring to bear their years of experience teaching in elementary, secondary and post-secondary contexts to explore the ways in which Indigenous and slow approaches to teaching and learning mirror and complement one another.

McGill University. "Explore Indigenous teaching strategies."

A collection of online resources and strategies for incorporating Indigenous content and ways of knowing into learners' learning experiences in the classroom and beyond, including land-based pedagogy, working with—and learning from—Elders and Knowledge Holders, and making space for storytelling.

Muzyka, Kyle. (2020). "I went to report on a Cree culture camp. It ended up changing my life." CBC.

A perspective on land-based education from an Indigenous person who grew up with little exposure to his culture, then attended a Cree culture camp.

Outdoor Learning Equipment and Resources. *Indigenous Language Learning Opportunities.*

Online Indigenous language instruction open to both Indigenous and non-Indigenous participants who wish to learn to uplift language revitalization.

Restoule, Jean-Paul and Chaw-win-is. (2017). ''Old ways are the new way forward: How Indigenous pedagogy can benefit everyone." Canadian Commission for UNESCO.

The authors explore traditional Indigenous ways of teaching and how they are the way forward for "new" innovations in education.

Bell, N; Wheatley, K. and Johnson, B. (2012). "The Ways of Knowing Guide: Earth's Teachings." Toronto Zoo.

This guide is a journey through Anishinaabe and Haudenosaunee Traditional Knowledge, reflected through worldviews, values, beliefs and stories that speak to the fundamental principle of ensuring sustainable relationships with the land.

Truth and Reconciliation Commission of Canada. (2023). "Education for reconciliation: calls to action for educators." Government of Canada.

The Truth and Reconciliation Commission of Canada's Calls to Action for educators (Calls 62–65) urge the development of curricula on Indigenous histories and cultures, professional training for educators, inclusive education policies, and funding for Indigenous language revitalization and community-based education initiatives.

University of British Columbia Indigenous Foundations

This information resource on key topics relating to the histories, politics and cultures of Indigenous Peoples in Canada includes a section on nomenclature and terminology.

Ferland, N., Chen, A., & Villagrán Becerra, G. (2021). *Working in good ways: a framework and resources for Indigenous community engagement*. Community Engaged Learning, University of Manitoba.

Discusses the eight principles for working in good ways with Indigenous communities: literacy, reflection, relationship, reciprocity, protocol, humility, collaboration and system change.

Vowel, C. Apihtawikosisan website.

This is an excellent resource for people unfamiliar with specific topics related to Indigenous Peoples. Vowel refers to these as "Indigenous Topic Primers."

Vowel, C. (2016). Indigenous Writes: A Guide to First Nations, Métis & Inuit Issues in Canada. Winnipeg: HighWater Press.

Discusses the relationship between Indigenous Peoples and Canada, including the terminology of relationships, culture and identity, myth-busting, state violence, and land, learning, law and treaties, along with wider social beliefs about these issues.

For further learning, consider registering for MOOCs (massive open online courses), such as:

- University of Alberta, Indigenous Canada
- University of British Columbia, Reconciliation Through Indigenous Education
- British Columbia Institute of Technology, Indigenous Awareness
- University of Toronto, Aboriginal Worldviews and Education
- Mount Saint Vincent University, Indigenous Studies open online courses

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