



ETFO VOICE

WINTER 2025

ENVIRONMENT ISSUE:

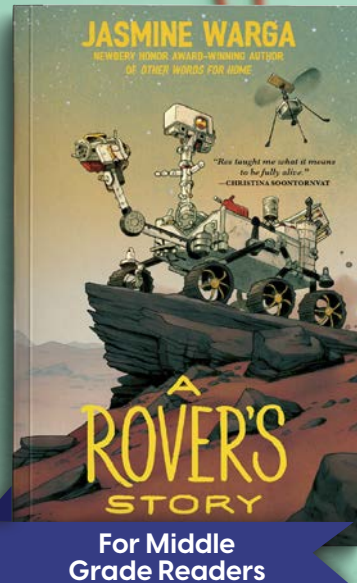
**BEYOND SUSTAINABILITY: AI, EDUCATION
AND REGENERATIVE FUTURES**

**THE LAND AS SCIENCE,
COMMUNITY AND CONNECTION**

CRITICALLY THINKING ABOUT SUSTAINABILITY

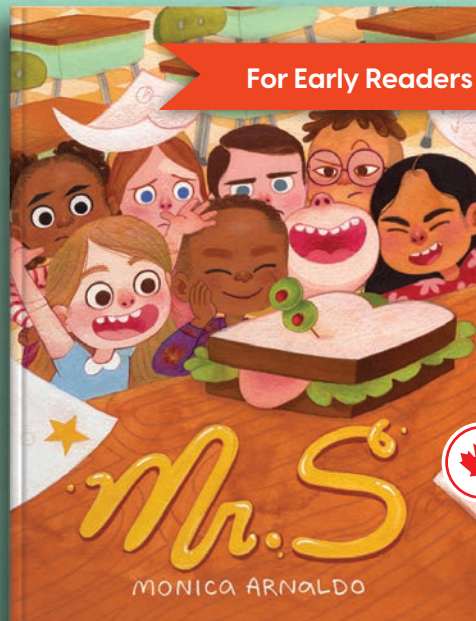
Life Lessons WITHOUT LIMITS

Having all the answers isn't the only ingredient for intelligence!



Resilience is a Mars rover determined to live up to his name. But as he learns from the scientists who assemble him, he begins to develop feelings. Maybe there's a problem with his programming...

Tristen likes it best indoors, deep in his online world. But when he's sent to a Dene First Nation culture camp to "touch grass," he discovers the value of real connection—on and offline.



No kindergartener knows quite what to expect on their very first day of school...

Discover these books and more at
 harpercollins.ca



APPLY FOR THE ETFO BLACK EDUCATOR BURSARY

To address the critical underrepresentation of Black teachers in Ontario, every year, the Elementary Teachers' Federation of Ontario (ETFO) offers two bursaries to support individuals who identify as Black. **Each bursary is worth \$12,838!**

The bursary is open to:

- ETFO members (including designated early childhood educators, education support personnel, professional support personnel) and non-ETFO members.

To qualify, applicants must identify as Black and be entering their first year in a publicly funded faculty of education program in Ontario, as full-time students. This bursary is not intended to support a master's or doctorate program.

Apply online between February 1 and April 30.

Learn more at [etfo.ca/awards!](https://etfo.ca/awards)





8



16



4 FROM THE EDITOR

5 FROM THE PRESIDENT

By David Mastin

6 FROM THE GENERAL SECRETARY

By Sharon O'Halloran

38 CURRICULUM:

The 5 Ws of Environmental Racism

42 YOUR FEDERATION

45 BOOK REVIEWS

47 CROSSWORD: "PICK-UP RECYCLING"

By Ada Nicolle

8

THE LAND AS SCIENCE, COMMUNITY AND CONNECTION

Gina Marucci writes about immersing her students in nature to help them understand how it relates to their lives.

16

CRITICALLY THINKING ABOUT SUSTAINABILITY

Sarah Lowes introduces The Sustainability LENSE, a tool designed to help us pause, ask sharper questions and weigh the systems behind each decision we make.



26
**BEYOND SUSTAINABILITY:
AI, EDUCATION AND
REGENERATIVE FUTURES**

Meagan Perry in conversation with
Dr. Maria Vamvalis.

30
BUILDING OUR FUTURE

Jen Reid writes about teaching her
grade 4/5 students to use design
thinking to imagine and create a
sustainable future community that
relies on renewable energy.



FROM THE EDITOR

PHOTO BY CHRISTINE COUSINS



This year, ETFO's winter issue of *Voice* is our environment issue, exploring resources and classroom practices to teach the next generation of activists to take care of the Earth and live more sustainably. On the heels of his participation in COP30 as part of the Education International delegation, President David Mastin writes, "In classrooms across Ontario, the climate crisis is not a theory – it is our students' lived reality. They breathe it in the haze of wildfire smoke and carry it as anxiety about a future that feels increasingly unstable. Our duty as educators is to not only

share what we know, but to teach the critical thinking skills and inspire the hope needed to navigate this challenge."

In *The Land as Science, Community and Connection*, Gina Marucci writes about immersing her students in nature to teach the Science curriculum and in order to help them understand how nature relates to their lives. "To witness a tiny living being stretch its antennae to touch a student's hand is to see connection come alive; a moment of pure respect, curiosity and shared life between child and creature. These experiences remind us of the deep connections that the outdoors can foster."

In *Critically Thinking About Sustainability*, Sarah Lowes introduces The Sustainability LENSE, a tool designed to help us pause, ask sharper questions and weigh the systems behind each decision we make. "The Sustainability LENSE isn't about finding perfect answers," Lowes writes, "it's about developing the habit of sustainable thinking." In a related article, Jen Reid reflects on teaching her grade 4/5 students to use design thinking to imagine and create a sustainable future community that relies on renewable energy.

In this issue's interview, Meagan Perry speaks with Dr. Maria Vamvalis about AI, education and regenerative futures. "I talk about regeneration as opposed to sustainability," Vamvalis says, "because we don't want to be sustaining the current systems. We need to regenerate ecosystems using a lens of healing, repair, and restoring relationships. Sustainability doesn't capture that."

These features, along with a curriculum resource that explores environmental racism and a themed crossword, highlight some excellent resources and approaches for thinking about the environment.

ETFO VOICE

ETFO Executive Members

PRESIDENT

David Mastin, Durham

FIRST VICE-PRESIDENT

Shirley Bell, Kawartha Pine Ridge

VICE-PRESIDENTS

Gundi Barbour, Upper Grand

Mary Fowler, Durham

OTF TABLE OFFICER

Nathan Core, Waterloo Region

MEMBERS-AT-LARGE

David Berger, Kawartha Pine Ridge

Manjit Deol, Peel

Liana Holm, Rainbow

Shideh Houshmandi, Hamilton-Wentworth

Heather Latam, Greater Essex County

Carolyn Proulx-Wootton, Grand Erie

Mario Spagnuolo, Greater Essex County

Mike Thomas, Thames Valley

Sylvia van Campen, Upper Canada

Sharon O'Halloran, General Secretary

Lorna Larmour, Deputy General Secretary

Sabrina Sawyer, Deputy General Secretary

ETFO Voice

Izida Zorde, Editor

Sharon O'Halloran, Business Manager

Michelle Goddard, Advertising Sales

David Beyer, Design

Contributors not otherwise credited:

Federico Carvajal, Dory Cerny

Member of the Canadian Association of Labour Media (CALM) and Canadian Education Press Association

Indexed in the Canadian Educational Index / Répertoire canadien sur l'éducation

ISSN: 1481-4072

Articles contained herein reflect the views of the authors and do not necessarily express official policy of the Elementary Teachers' Federation of Ontario.

Acceptance of an advertisement does not imply ETFO endorsement of the product or service. Advertising contracts are subject to cancellation if members complain.

Publications Mail Agreement no. 42409515.

Return undeliverable Canadian addresses to:

136 Isabella Street

Toronto, ON M4Y 0B5

Phone: 416-962-3836 or 1-888-838-3836

E-mail: etfovoice@etfo.org

etfovoice.ca

Printed by Thistle Printing on FSC certified, 10% post-consumer content; Carbon Lite and Green-e® certified renewable energy paper.



FIGHT FOR OUR FUTURE: WHY CLIMATE JUSTICE IS EDUCATION JUSTICE

The fall has exemplified how the Ontario government continues to fail public education and reinforced for your provincial Executive the importance of ETFO members being organized and engaged, particularly as we head into collective bargaining next year.

The recent passing of Bill 33 demonstrates a staggering misdirection of government focus. Instead of funding public schools and equipping students with the resources and supports they need to be successful, the government is preoccupied with dismantling community representation. This fixation on restructuring governance distracts from the urgent crises facing our students, including a rapidly changing climate. While the government centralizes power over our public schools, it neglects its fundamental duty to prepare the next generation for the unstable future it is inheriting.

It is this vacuum in leadership that drew ETFO to participate in this year's Canadian Labour Congress delegation to COP30, the United Nations' annual climate conference. In November, I was proud to stand with the labour delegation, fighting for what our own government will not: a future where climate justice is understood as inseparable from education justice. Our goal was to push governments to prioritize quality climate education and to invest in the funding necessary for climate-resilient schools.

In classrooms across Ontario, the climate crisis is not a theory – it is our students' lived reality. They breathe it in the haze of wildfire smoke and carry it as anxiety about a future that feels increasingly unstable. Our duty as educators is to not only share what we know, but to teach the critical thinking skills and inspire the hope needed to navigate this challenge. In Ontario, we are doing this work *despite* the provincial government, not with its support.

Like other aspects of our underfunded public education system, our school buildings tell a story of neglect. Schools that should be models of sustainability and resilience are often crumbling, energy-inefficient structures. The chronic underfunding of infrastructure means "greening our schools"



PHOTO BY CHRISTINE COUSINS

relies on the volunteer heroics of staff and parent councils, not on a coherent provincial plan. We are at a crossroads, and Ontario must recognize the opportunity in front of us. We could lead the way by implementing a much-needed infrastructure renewal of our public education system, retrofitting our schools to reduce emissions and increase energy efficiency, while simultaneously future-proofing them for a changing climate.

My experience at COP30 was both sobering and galvanizing. I saw that the failure to prioritize climate education is a global crisis, but the collective power of educators is a formidable force for change. Standing with union leaders from every continent, I learned that the gaps in Ontario's curriculum and the lack of investment in greener schools and support for our teachers are not isolated issues, but part of a systemic, global failure by many governments to treat education as a cornerstone of climate justice. We are not just

advocating for better resources; we are part of an international movement demanding that governments fulfil their duty to every child.

Across Ontario, educators are doing their very best to teach students to be critical thinkers; to apply a lens of regeneration, sustainability and equity; to understand how their lives are connected to all living beings; and to foster the creativity that will ultimately help them combat fear with agency. But our public schools also need the government to make major investments in green school infrastructure and dedicated training, resources and support for teachers.

The climate crisis is here. Our students feel it every day. They deserve a public education that engages critically and hopefully with the world they will inherit. They deserve a government that listens to science and to the passionate advocacy of their teachers – a government that funds classrooms, not takeovers.

– David Mastin

CLIMATE ACTION, EQUITY AND ONTARIO SCHOOLS

The fall has been a very busy time at ETFO, supporting members confronting historically large class sizes and pushing back against a provincial government that has been dead set on taking over school boards instead of addressing the real issues in public schools that have resulted from years of underfunding.

Adjusted for inflation, the successive funding cuts to public schools since 2018 add up to a staggering \$6.35 billion. This represents a drop in per-student funding of \$3,052. These funding cuts have led to a significant increase in violence in schools, a lack of resources and supports for students and educators, untenable class sizes and school buildings that are crumbling and ill-equipped to handle the increasingly common extremes in weather.

This issue of *Voice* is our environment issue and a chance to highlight some of your best practices in bringing climate change and climate justice to life in your classrooms. We know that educators across the province are working hard to not only educate their students and teach them to think critically and creatively about climate solutions, but also to inspire hope in the generation that will ultimately take on these challenges. Every day Ontario teachers help students recognize their agency as citizens, their collective power to not only make small local changes but to influence larger, systemic actions and call on decision-makers for policy change – particularly when it comes to climate change and equity.

The devastating effects of climate change, from severe floods and ice storms to intense heat waves and record wildfires, are not felt equally. They disproportionately burden marginalized, low-income and racialized communities, worsening existing social and economic disparities. Our environmental education must continue to do more than teach conservation; it must prepare students to understand and confront these inequities to foster a generation of advocates for climate justice.

Climate change and climate education are among the many issues on which ETFO advocates as part of our work to build better schools for all Ontario students. Last year, along with a broader campaign advocating



PHOTO BY CHRISTINE COUSINS

for smaller classes and investment in the resources and supports students need to be successful, ETFO ran a campaign calling on the Ontario government to invest in school buildings to make them greener and more resilient.

While we teach about sustainability and justice, the provincial government continues to retreat from accountability measures designed to achieve these important goals. Responding to the Ontario government's proposed legislative changes that would repeal the legal requirement to set emissions reduction targets, develop a climate change plan, and report on progress, in November, Rick Smith, president of the Ontario Climate Institute, said "it is unclear how Ontario expects to achieve measurable results on reducing emissions and accelerating low-carbon competitiveness without setting a credible climate target or a plan to achieve it."

"What you don't measure, you can't manage," Smith continued. "It's disappointing to see Ontario walking away from basic trans-

parency and best practices for tackling climate change."

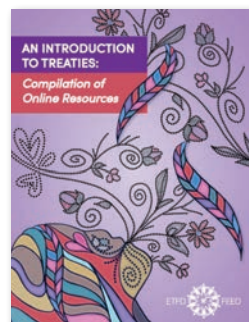
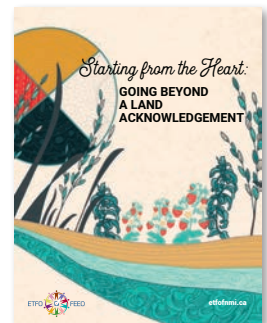
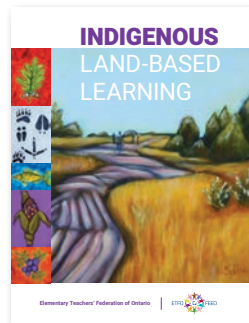
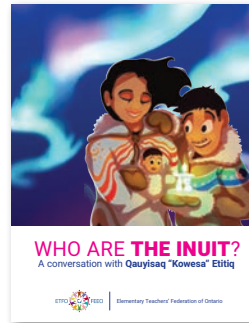
This policy gap highlights a disconnect in our education system. Public education on climate change and climate justice should be supported and amplified by strong public policy, not forced to compensate for its absence. We need significant investment – not only in updated curriculum resources and professional development that centre climate justice, but fundamentally in the physical infrastructure of our schools and the broader policies that will move Ontario forward.

Thank you for all you do to bring the climate curriculum and all curriculum to life for your students. This meaningful work is both inspiring and demanding. With all the joys and challenges each school year brings, the winter break offers a wonderful chance to rest and recharge. Wishing you a peaceful and restful holiday season.

– Sharon O'Halloran

Interested in First Nations, Métis and Inuit Education Resources?

Check out these ETFO resources at etfofnmi.ca







THE LAND AS SCIENCE, COMMUNITY AND CONNECTION

BY GINA MARUCCI WITH EMMA STEVENS AND JAANA COOPER

“To become naturalized is to live as if your children’s future matters, to take care of the land as if our lives and the lives of all our relatives depend on it. Because they do.”

— Robin Wall Kimmerer, *Braiding Sweetgrass*

At Queensville Public School, where I teach, this idea of “becoming naturalized” takes on new meaning. Here, students are not just learning *about* the environment – they are learning *from* it.

Perched atop the Oak Ridges Moraine, the school overlooks forested trails that call students outdoors to explore, question and connect. In these daily nature walk interactions, they are beginning to form the very relationships Potawatomi botanist and author Robin Wall Kimmerer describes; ones of care, curiosity and belonging to the land and to one another.

The Ontario Science curriculum is full of opportunities for students to connect with the land, to leave the walls behind and get their hands dirty: Characteristics of Living Things, Daily and Seasonal Changes, Air and Water, Growth and Change in Animals, Changes in Matter, Growth and Change in Plants. With these, alongside STEM expectations that include observing, documenting and communicating their findings, it is hard to imagine that students are inside at all for science.

For students to truly connect with these units, it is important for them to understand how the content relates to their lives. What living things exist in our neighbourhoods? How do the seasons impact those living things? By being witnesses to changes through the seasons, students begin to develop a relationship with the land and its beings. In a way, it becomes like an old friend. The “cactus plant” (also known as mullein) that stands over six feet tall along one of the paths students walk will reveal all its gifts through the seasons as we pass by. It will feed the birds through the winter and as spring arrives, other plants will appear around it and students will discover the stalk sprouting from the second-year plants. Already some have excitedly shared that they “saw birds on it!” while walking the trail with their families.

A key component of doing science outside is sit spots. This is a practice in which students sit quietly in nature and use their senses. One of our Kindergarten classes







engaged in sit spots for a few minutes recently and shared about “hearing the wind,” “smelling rain,” and “watching an ant.” After experiencing sit spots several times, some Grade 3 students keenly requested to use their nature journals to record their observations.

This regular practice helps learners build an emotional connection to this place and nurture their relationship to it. Students also hone critical science skills in this practice: observing, questioning, predicting and recording in their nature journals.

The regular visits to the trail have revealed a diverse array of living things that have sparked authentic inquiry driven by students’ questions. One morning, we found many dead grasshoppers along the trail. After learning about insect life cycles and discussing possible reasons for these deaths, students agreed that it was due to the previous night’s frost. As we talked, more questions arose about where the insects come from in the spring.

These real-life situations encourage students to be detectives of the land around them. What’s the difference between a slug and snail? This conversation arose from one morning’s community walk that revealed many slugs and snails along the path. Every few steps students would find a slug, snail, or earthworm, prompting one of them to exclaim, “There must be a thousand out here!” This simple declaration sparked a math investigation during the following nature walk. How many slugs, snails and earthworms can we find? Students used tally marks and a sim-

ple chart to record their observations.

Further down the trail, we spotted something furry and black – a star-nosed mole. This fascinating creature prompted a rich discussion as students once again began questioning “how this mammal ended up in this spot.” Its unique body and front legs designed for digging provide a textbook example of physical adaptation. Its distinctive nose became the centre of conversation for many of the kindergarteners who observed it, inspiring classroom read alouds, documentary viewing and knowledge-building circles to understand more. The students’ beautiful artwork and drawings of this one-of-a-kind creature helped share their learning with others.

These are moments that could never be created in a classroom. Watching a child reach out a finger for a curious slug to explore, or gently lift a worm to safety off the path, fills the air with quiet wonder. To witness a tiny living being stretch its antennae to touch a student’s hand is to see connection come alive; a moment of pure respect, curiosity and shared life between child and creature. These experiences remind us of the deep connections that the outdoors can foster. And is this not what we as educators strive for – empathy, compassion, caring, curiosity, wonder, discovery?

In 2018’s *A Walking Curriculum: Evoking Wonder and Developing Sense of Place* (K-12), Simon Fraser University educational leadership professor Gillian Judson talks



about how when we change the context of learning, connections to curriculum become more meaningful for students. Taking the learning outside often increases engagement, regardless of the content, she writes. By honouring the questions, comments and experiences students have while exploring nature, we honour the land itself.

Through these experiences, the children also call us to reflect on our responsibilities as educators – responsibilities that align closely with the Calls to Action from the Truth and Reconciliation Commission – urging us to embed truth, respect and reconciliation into all aspects of our teaching.

Queensville Public School students and staff are working to put the 94 Calls to Action into practice, with a particular focus on number 14, which focuses on the need to preserve and revitalize Indigenous languages, and number 92, which emphasizes respectful relationships with Indigenous Peoples and their lands and resources.

For educators, this means helping students understand that land is not just a resource, it's a living relationship. Outdoor learning can model this by teaching students to care for the land, notice its gifts and act responsibly within it; these are values long held in Indigenous worldviews. When we take students outside to observe, listen and care, we are beginning to practice what reconciliation looks like on the land through respect, reciprocity and relationship.

At Queensville, language has become a powerful thread of learning, offering new possibilities to invite families to share words in their home language, and create opportunities for collaboration with local First Nations to support language revitalization with our students. The star-nosed mole became a powerful spark for learning, connecting our students, many of whom are new Canadians, to the land and to one another through shared curiosity and wonder.

As part of the National Day for Truth and Reconciliation, students began their learning in the classroom, but it wasn't until they stepped outside that the Calls to Action came alive in meaningful ways. The learning became organic; students began to notice the world around them, reflecting on their relationship to the land and to Indigenous partners. They took initiative to share what they were learning by creating signs in their home languages, including Farsi and Russian, helping them understand how their voices and actions can bring communities together and create change.





Language is inseparable from the land and the beings we share it with. Every language holds stories, relationships and ways of seeing the world. This understanding deepens when we learn with and from local First Nations languages. Sharing stories about plants, animals and nature experiences from different parts of the world helps build community and reminds us that caring for the land is something that connects us all, regardless of where we come from. The students from Queensville are bringing many nature stories home.

Practicing reconciliation through land-based learning means beginning where we are — noticing, naming, and learning from the land itself. Around Queensville, this meant widening our view. Just beyond the schoolyard, less than seven minutes away, lies the Holland Landing Prairie Provincial Nature Reserve, a landscape rich with stories and life.

The rehabilitation of this sensitive piece of land has opened the door to a unique partnership between its caretakers, Ontario Parks and our public school. From this shared sense of responsibility, the Queensville Nature Club will hold a critical place. While the relationship with the prairie caretakers is still in its infancy, some early plans include seasonal visits to the prairie and a community day where students' families can visit and learn as well.

The Nature Club is a place for students in grades 1 to 6 to connect with the land and learn what it means to care for it. More than 70 students joined the first meeting, eager to share their own ideas, including protecting water, building birdhouses, making signs to stop pollution and exploring the living things around them. These early actions, supported by educators, are part of a larger goal to earn EcoSchools certification and build a culture of sustainability rooted in love for the land.

A commitment to the land through science takes dedication. As the seasons change to colder months, communication with families will be critical to ensure students are dressed for the weather. Even when the unit isn't a direct fit for outdoor learning, regular community walks allow students to notice their communities and all the beings that also call it home throughout the changing seasons, often sparking some of the most wondrous curiosities. The learning is always there, we just have to be ready to honour it. ■

Gina Marucci is a member of the York Teacher Local.



CRITICALLY THINKING ABOUT SUSTAINABILITY

BY SARAH LOWES



PHOTOS BY CHRISTINE COUSINS





TRUE SUSTAINABILITY IS LESS ABOUT MAKING THE 'RIGHT' CHOICE EVERY TIME AND MORE ABOUT APPLYING A CRITICAL LENS TO EACH DECISION. THE SUSTAINABILITY LENSE FRAMEWORK OFFERS ONE WAY TO ASSESS THE LIFE CYCLES, ENERGY USE, LOCAL IMPACTS, SCALE AND EQUITY BEHIND OUR CHOICES."

As we become more aware of the environmental and social impacts of our choices, it's easy to feel that every purchase or action is a vote for the future we want. Yet for decades, major polluters have promoted the idea of a personal carbon footprint to make individuals feel responsible for a crisis driven by large-scale extraction and production. While we debate paper or plastic straws, those systems continue largely unchanged. In a globalized economy, and in our desire for simple solutions, we often overlook the true complexity of sustainability.

We regularly face everyday sustainability dilemmas: hand dryers or paper towels, local or imported foods. A reusable bag, for example, requires far more energy and emissions to produce than a single-use plastic one. Even our bigger decisions come with trade-offs. Electric cars may seem like a clear solution, but what about the battery? As data scientist and sustainability researcher Hannah Ritchie points out in her book *How to Be the First Generation to Build a Sustainable World* (and in her excellent blog *Sustainability by the Numbers*), many of our assumptions are shaped by "zombie facts" that refuse to die.

The claim that EV batteries can't be recycled is one such myth. While electric vehicles do have a higher carbon cost at production, by their second year on the road they typically outperform gas-powered cars, especially in regions with cleaner electricity grids like Ontario. And sometimes, the most sustainable vehicle is simply the one you already own, since its manufacturing emissions are already accounted for.

The same logic applies to our digital choices. A few artificial intelligence-powered searches use less energy than streaming a movie at home, and both activities produce far fewer emissions than eating beef. In burger terms, a year of daily AI use equals

roughly five burgers, while a year of daily video streaming is closer to hosting a single 20-burger backyard BBQ.

The point isn't to use AI freely (especially after you hear from the neighbours who are being pushed or polluted out to make way for data centres), but to bring attention to scale, and to remember that what we eat carries a much larger footprint than what we click.

True sustainability is less about making the "right" choice every time and more about applying a critical lens to each decision. The Sustainability LENSE framework offers one way to assess the life cycles, energy use, local impacts, scale and equity behind our choices.

Much of this perspective is shaped by Ritchie's work, which I highly recommend not only for personal reflection but also as a classroom read. Her data-driven approach connects beautifully to math, science and geography, turning charts, graphs and real-world statistics into meaningful conversations about what sustainability really means in a quickly shifting global supply chain. Ritchie helps us see which choices we can stress less about (like how we dry our hands) and where our decisions truly make a difference (like what we eat).

THE SUSTAINABILITY LENSE FRAMEWORK

Sustainability isn't a checklist of right or wrong choices; it's a way of seeing. The Sustainability LENSE is designed to help us pause, ask sharper questions and weigh the systems behind each decision. It helps us look more closely at how our choices connect to larger systems.

L: LIFE CYCLE

What's the full story of this product? What resources were extracted to produce it, and what happens when I'm done with it?





Every item has a lifespan, from extraction and production to use and disposal. Those rollerblades you threw out when you were a teenager? They likely still exist in a landfill somewhere. Considering the full journey of an item exposes hidden environmental costs behind everyday products.

Example: Research from Our World in Data (ourworldindata.org) shows that replacing beef with chicken offers one of the most impactful single swaps in a diet, more than switching from eating chicken to being vegetarian. Cattle require enormous amounts of feed, land and water throughout their lives. They also release methane as they digest, a greenhouse gas far more potent than carbon dioxide. By comparison, chicken needs far less land and feed per kilogram of protein, and tofu's production involves no methane at all. The difference isn't just what we eat, but what it takes to grow and sustain it.

E: EMISSIONS AND ENERGY

How much energy does it use throughout that life cycle, and where does that energy come from?

This varies widely by source country. For instance, an item produced in a Canadian electricity grid, powered predominantly by low-carbon-emitting hydro and nuclear, has a much smaller impact than in China, which, despite being a leader in renewable capacity, still gets about 60 per cent of its electricity from coal. The same product can carry a completely different footprint depending on where it's made.

Example: Streaming a two-hour film might produce less than 200 grams of carbon dioxide, but training large artificial intelligence models can require thousands of times more energy, particularly when powered by fossil grids. "Digital" doesn't mean emission-free, it simply shifts the emissions upstream to servers, cooling systems and the electricity that keeps them running.

N: NEIGHBORHOOD (LOCAL) IMPACTS

Who and what is affected nearby? How does this production shape local ecosystems and communities?



'DIGITAL' DOESN'T MEAN EMISSION-FREE, IT SIMPLY SHIFTS THE EMISSIONS UPSTREAM TO SERVERS, COOLING SYSTEMS AND THE ELECTRICITY THAT KEEPS THEM RUNNING.'



TRUE SUSTAINABILITY INCLUDES FAIRNESS AND ACCOUNTABILITY. COMMUNITIES NEAR EXTRACTION, DATA CENTRES, OR PROCESSING PLANTS OFTEN FACE THE GREATEST ENVIRONMENTAL HARM WHILE GAINING THE LEAST BENEFIT.”

Every supply chain touches real places and people. Understanding local impacts helps reveal who pays the unseen costs of global consumption.

Example: Fast fashion factories, concentrated in regions with weak environmental protections, often release chemical dyes and microplastics into local waterways. Many benefit from cheap and trendy clothes, yet the local health and ecological costs are intentionally veiled. Buying less, choosing ethical fashion and supporting circular design cycles recognizes the people and ecosystems behind every garment.

S: SCALE AND FREQUENCY

How big is this impact when multiplied across society? How often does it occur?

Some actions matter less individually but add up collectively. Recognizing scale helps identify where systemic change has the greatest effect.

Example: Transportation is one of the largest sources of emissions in Canada. While a single long-haul flight emits more carbon per passenger than a year of public transit commuting, it's our everyday systems, including millions of solo car trips, which carry the real weight. Building reliable, affordable and frequent public transit doesn't just reduce emissions, it improves air quality, creates good jobs and ensures equitable access to mobility.

E: EQUITY

Who benefits, who bears the cost, and whose voices are missing?

True sustainability includes fairness and accountability. Communities near extraction,



data centres, or processing plants often face the greatest environmental harm while gaining the least benefit.

Example: In northern Ontario, the De Beers Victor diamond mine operated for years near the Cree community of Attawapiskat, extracting billions in diamonds while residents lived under long-term boil-water advisories. Diamond mining leaves behind altered waterways, chemical runoff and land that can take generations to recover. A reminder that those most affected by extraction should be engaged in decision-making, benefits and restoration throughout the process.

The Sustainability LENSE isn't about finding perfect answers, it's about developing the habit of sustainable thinking. By considering

life cycles, energy, local impacts, scale and equity, we shift from reacting to reflecting, making decisions rooted in understanding rather than assumption.

SEVEN GENERATION THINKING

The Haudenosaunee Confederacy, one of the oldest participatory democracies on Earth, teaches a principle known as Seven Generation Thinking, the idea that the decisions we make today should serve not only ourselves or our families, but also the seven generations to come.

At first, seven generations may sound distant, but it isn't. If you've met your great-grandparents and might one day meet your great-grandchildren, that's seven generations in a single lifetime.



This perspective reframes sustainability not as a technical problem to solve, but as an intergenerational relationship to nurture. It reminds us that the ways we teach, vote and care for the land influence generations yet to come, and that climate action cannot rest on individual behaviour alone.

FROM INDIVIDUAL GUILT TO COLLECTIVE RESPONSIBILITY

Environmental challenges are deeply interconnected, and so are their solutions. History shows that smarter systems, not simply stricter habits, drive the biggest gains. Over the past century, advances in farming have tripled or even quintupled global crop yields, feeding more people without expanding farmland, and decreasing global hunger. Better seeds, more efficient fertilizers, decreased use of pesticides and more efficient farming practices have all contributed to these agricultural gains.

In cities, investments in public transit and green infrastructure reduce air, water and noise pollution, prevent traffic deaths, reduce emissions and make neighbourhoods more livable. When one solution strengthens several systems at once, progress accelerates across them all.

Some of our intuitions about what's "green" can be wrong. A fruit wrapped in thin plastic preserves freshness for weeks, dramatically reducing food waste and preserving its total life cycle and energy used. We would have even more food waste without the plastic wrap, producing more emissions.

Similarly, established palm oil farms (i.e., those not replacing old-growth forests) are highly efficient, producing far more oil on less land than alternatives like coconut or soybean. Replacing palm oil entirely would actually increase deforestation and emissions due to the greater land use required by any other oil.

Still, no amount of careful consumer choice can fix a broken system. The scale of transformation we need requires political, economic and technological change. A single policy shift can equal or exceed the lifetime efforts of a million individuals.

This is why civic participation matters: when citizens, workers and educators act together, governments have to listen. Let's spend less time debating whether oat milk is greener than soy (production of any dairy alternative emits far less than cow's milk) while runaway corporate greed prioritizes profit at the expense of people and the planet.





Real progress happens when we move in the same direction toward shared goals.

As educators, this means using our collective voice as both union members and community builders to advocate for systemic change. The fight for climate justice is also a fight for workplace safety, public infrastructure and intergenerational equity. As one of Canada's largest unions, ETFO has the power and responsibility to lead by example, integrating sustainability into our operations, bargaining and classrooms, and proving that collective action and environmental responsibility are inseparable.

Individual action still matters. Every electric vehicle purchased, every plant-based meal served and every recycled product used sends a signal about the world we want to build. Paired with public action such as voting, organizing, bargaining, and educating, these choices grow into the collective hope that drives real change. ■

Sarah Lowes is an intermediate educator and co-chair of the ETFO Halton Climate Justice Committee. She also serves as chair of the Canadian Teachers' Federation Climate Working Group and is the co-founder of Locals for a Greener Future, a grassroots network of ETFO members organizing for climate action across Ontario.

Learn more or get involved at tinyurl.com/Climate-SafeSchools.

BEYOND SUSTAINABILITY: AI, EDUCATION AND REGENERATIVE FUTURES

MEAGAN PERRY IN CONVERSATION
WITH DR. MARIA VAMVALIS



PHOTO COURTESY OF MARIA VAMVALIS

Maria Vamvalis was an Intermediate educator in the TDSB who went on to engage in doctoral research on the intersection of climate justice, regenerative systems change, and transformative learning. She credits ETFO's Reflections on Practice: Women's Leadership program with being a bridge between the classroom and her research. Those investigations have led her into the realm of artificial intelligence. She is a co-leader of Canada's first national climate education course and the Toronto District School Board's climate camp. She is also a Director with the Critical Thinking Consortium, an organization that nurtures quality thinking that inspires action for a flourishing world. She is also the founder of Anayenisi, a regenerative field of practice for changemakers.

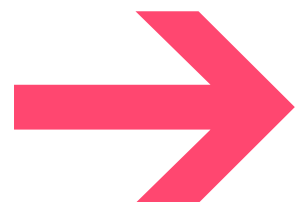
Meagan Perry: How did you become interested in the intersection of AI and climate justice?

Maria Vamvalis: I was always very interested in the intersections of the environment and justice issues, but over 20 years ago, when I first started teaching about the accelerating climate crisis and the impact on youth well-being, I was thinking a lot about our respon-

sibilities as educators and how we were going to support youth in their response to the climate and nature emergency. That led me ultimately to doctoral studies focusing on the question of how we can teach about climate justice in ways that nurture a sense of meaning, purpose, and hope. Given the ecological impacts and justice concerns around AI, and the rapid integration of AI and education, I began to carefully consider how we could support leaders, educators, and learners in navigating this complex moment.

MP: We're seeing AI grow and change very rapidly. Educators are really struggling to keep up with it, particularly with large and complex classes. What's most important as we consider the uses of AI?

MV: This is a profound opportunity within education to think in integrative ways about what's happening, about the intersections between our commitments to equity and our commitments to ecological sustainability.





"THE REASON I TALK ABOUT REGENERATION AS OPPOSED TO SUSTAINABILITY IS THAT OUR WHOLE APPROACH IS UNSUSTAINABLE. THIS IS WHY WE'RE IN ECOLOGICAL CRISIS. SO, WE DON'T WANT TO BE SUSTAINING THE CURRENT SYSTEMS. WE NEED TO REGENERATE ECOSYSTEMS USING A LENS OF HEALING, REPAIR, AND RESTORING RELATIONSHIPS. SUSTAINABILITY DOESN'T CAPTURE THAT."

One of the things we want to be doing right now is slowing down and thinking about how to navigate this moment with discernment. For instance, what kind of criteria should guide us in making sure that quality thinking stays at the centre of education? We need to consider how we will align the use of technologies with core values and connect the digital with ecological and relational literacies.

I want us to think about regeneration not sustainability, along with truth and reconciliation, decolonization, and pedagogies of inclusion that support well-being. All these things should be considered together in thoughtful ways.

MP: Can you talk a bit about what you mean by the term regenerative?

MV: The reason I talk about regeneration as opposed to sustainability is that our whole approach is unsustainable. This is why we're in ecological crisis. So, we don't want to be sustaining the current systems. We need to regenerate ecosystems using a lens of healing, repair, and restoring relationships. Sustainability doesn't capture that.

Many distinct Indigenous knowledge systems advocate coming back to principles of reciprocity that really bring about regeneration, as opposed to what we are doing right now by extracting as much as possible from the Earth as quickly as we can in order to make profit and sustain our current way of life.

MP: Could you talk a bit about the environmental impacts of AI?

MV: Every time you put a prompt into ChatGPT that is the equivalent of using about a bottle of water, and that number goes up substantially when you're engaged in image generation. There was a study released November 10 in *Nature and Sustainability* reporting that by 2030, the current rate of AI growth would annually put about 24 to 44 million metric tons of carbon dioxide into the atmosphere. That's the equivalent of adding about five to 10 million cars to the roadway. Thinking about that in the context of the climate crisis, the way AI systems are currently being developed is increasing those emissions. For water, by 2030 we're on track to use as much water for AI as the entire country of Denmark uses, and that will only continue to increase.

Looking at it from the lens of environmental justice, people are building AI data centres in poor and marginalized communi-

ties, which are already facing water shortages.

There are ways that AI can be configured that would be more ecologically sustainable. We could decarbonize and use more sustainable regenerative energy for AI operational efficiencies that would absolutely reduce emissions and water use. But that's not the mindset of corporations. It's important to build collective movements and that education advocate for discernment about how we're using these tools, how we're talking about them, how we're supporting learners to map and understand the systemic realities of AI. These issues are interconnected.

AI runs on data. All the knowledge we've produced fuels AI. But to feed that data into AI, it needs to be what's called "cleaned." Removing violent and pornographic images is work that needs to be done, and is often done in Global South nations by exploited workers making unfair wages and exposing them to trauma. That's another shadow aspect of AI that people are not aware of.

These are critical justice issues, intersecting with environmental issues, that absolutely must be driving decision-making in society.

MP: There are lots of resources about how to use AI, but there are not a lot of conversations happening about whether to use it. How do you think educators can teach students to think critically about the use of AI and to consider its environmental impacts?

MV: There are mixed studies about whether AI is good or bad for critical thinking, but what it is telling us very clearly is that AI magnifies learning design. Some studies show that if AI is well scaffolded with critical inquiry, it can actually support the development of quality thinking, but in unstructured use, when students are outsourcing the hard parts of thinking, we actually see measurable drops in critical engagement and in students' critical thinking abilities. The cognitive offloading piece is very important.

Within education, we should be very concerned about this and carefully designing learning to prevent the decline in critical thinking. One of the big concerns around whether to use AI is whether AI is training us to accept unexamined answers, especially in the current context of rising authoritarianism. Examining evidence, having deliberative discussions with each other, engaging in the thoughtful examination of issues in our communities is essential for democracy. If we're offloading critical thinking to AI and accepting its answers uncritically, there are



profound implications. How we're going to ultimately consider AI use, and the ways in which we're going to use it, are such important questions for education systems to be grappling with right now.

MP: What would you advise for people who are using AI?

MV: Take the time to develop discernment about your use of AI; start from a critically minded stance in approaching how or whether to use it. Learn about the environmental and equity implications and teach your students about those issues. Help students understand that they need to evaluate AI, rather than just absorbing its use uncritically. Nurture students to be inquiry minded so that they are asking better, richer, deeper questions, not trying to get quicker answers. That kind of rich critical inquiry becomes a powerful driver for meaningful learning. AI cannot construct meaning, nor can it replace our own experiences or the rich personal network of ideas, experiences, schema, and insights that inform how we make a decision.

Supporting learners in accepting discomfort in learning is essential, particularly because AI makes it very easy to bypass the hard parts of thinking. We want to ensure that the tasks we design are keeping students in that zone of productive struggle, what I would call the transformative zone of learning, not the convenience zone. Nurturing

transformative thinking habits, advances this in powerful ways. A more holistic approach to teaching and learning helps students hold that complexity.

MP: Is there a particular consideration when it comes to AI and climate justice that you'd like educators to take away from this interview?

MV: I really would love for all educators to be thinking very relationally and systemically about AI. We need young people to see the whole system behind a single AI output, from the cobalt mine to the data centre, to the water use, to the energy use, to the classroom decisions AI shapes. I would love it if we put criteria around our AI use, so that we're educating learners who are going to be transformative agents of change in whether and how they use artificial intelligence. Let's ask ourselves: Can we use AI to support the creation of more regenerative, just, relational, and caring futures? If we put that at the centre, and we make that a really powerful, critical inquiry, how does that transform education?

We must not allow this tool to erase and diminish our human capabilities, but instead ensure that AI is being used in a way that is supporting justice and regeneration. That should really be the focus. ■

This interview was originally published on the *Elementary* podcast. The transcript has been edited and condensed. Listen to the original at etfo.ca or on most podcast apps.

Meagan Perry is a member of ETFO Executive Staff.

"WE NEED YOUNG PEOPLE TO SEE THE WHOLE SYSTEM BEHIND A SINGLE AI OUTPUT, FROM THE COBALT MINE TO THE DATA CENTRE, TO THE WATER USE, TO THE ENERGY USE, TO THE CLASSROOM DECISIONS AI SHAPES. I WOULD LOVE IT IF WE PUT CRITERIA AROUND OUR AI USE, SO THAT WE'RE EDUCATING LEARNERS WHO ARE GOING TO BE TRANSFORMATIVE AGENTS OF CHANGE IN WHETHER AND HOW THEY USE ARTIFICIAL INTELLIGENCE."



PHOTOS BY CHRISTINE COUSINS

BUILDING OUR FUTURE

BY JEN REID

In the spring of 2025, one of my Grade 4 students reflected on how old he would be in 2100, and whether he would be alive. I replied that yes, I did think he would be alive, and we calculated that he would be 85. But then, to myself, I wondered, “What will the world look like in 2100?”

To say that we live in uncertain times is an understatement. Climate change, rising fascism, artificial intelligence, increased income inequality, genocide, war, eroding democratic systems – these are just some of the extreme world events that continue to overwhelm us with pictures of a planet in turmoil. In fact, we are in a “permacrisis,” a term coined just after the pandemic by Collins Dictionary to describe “an extended period of instability and insecurity, especially one resulting from a series of catastrophic events.”

Faced with inheriting a world in chaos, there is little wonder that young people are increasingly struggling with their mental health. Information from the 2022 *Health*

of Young People in Canada: Focus on Mental Health report indicates that feelings of hopelessness and sadness are on the rise. The report, developed by the Public Health Agency of Canada, used extensive surveys of young people across Canada to research trends in mental health.

The results are startling: for Grade 8 cisgender girls, feelings of being sad or hopeless almost every day for more than two weeks increased to 46 per cent in 2022 from 24 per cent in 2010; for Grade 8 cisgender boys, the increase was to 21 per cent from 14 per cent over the same period.

Self-identification as transgender or gender-diverse were not options in surveys



conducted prior to 2022, but results of the latest survey show poor well-being was reported by 70 per cent of transgender youth in Grades 6 to 8, as well as by 41 per cent of cisgender girls and 20 per cent of cisgender boys. Reasons for these increases are complex (e.g., the COVID-19 pandemic, social media), but also include the climate crisis.

Personally and professionally, I have thought about our future world a great deal. It is reasonable to have a high level of anxiety about what the planet and political systems will look like for our students as they grow up. It is easy to feel overwhelmed by the state of the world. Yet, as a climate activist, organizer and educator, embracing hope for the future is essential. Developing a mindset of optimism – and then taking the steps necessary to create a future world that is sustainable and just – is not only invigorating and motivating but an act of resistance. Having a sense that we are in a bleak moment in history but knowing that history goes through waves of very challenging times gives us a sense that if we work together, we can change the world for the better.

SUSTAINABLE FUTURE COMMUNITY

With all this in mind, last year I developed a unit for my Grade 4/5 class that embraced design thinking to create a sustainable future community that relies on renewable energy. This was a creative group of students who liked to think outside the box. Giving them a hands-on task that integrated multiple subject areas and learning skills was a great opportunity for them as students and for us as a community.

SCIENCE INTEGRATION

Anyone who has ever taught a split-grade class knows it can be a challenge to balance the curriculum needs of both grades. An effective strategy is to combine the instructional tasks as much as possible. For this project, I combined the Grade 4 Light and Sound strand with the Grade 5 Conservation of Energy and Resources strand. We investigated solar power, specifically how light energy travels from the sun and how solar panels transform the sun's energy into clean, renewable power.

It's exciting to find connections between different subject areas, social justice goals, and learning skills. As education becomes progressively more challenging, looking for







the beauty within integration is energizing. Understanding and incorporating concepts creates a rich, discussion-oriented classroom. For example, learning that light travels from the sun to the earth in eight minutes and 20 seconds, and that that energy powers our lights and feeds our electric grid, all while sustaining life on earth, is amazing.

SUSTAINABLE DEVELOPMENT GOALS

An aspect of the project that I particularly enjoyed was the incorporation of the United Nations Sustainable Development Goals (SDGs). The 17 SDGs were created in 2015 as a way to support peace and prosperity for the planet, tackling climate change, and supporting life on land and in the oceans. While the goals have had some limited success, they are an important framework for creating a safe and equitable future. (Learn more at sdgs.un.org/goals.)

The students were put into groups for this project and were asked to come up with a name for their community. I asked the students to connect their group name to one of the 17 SDGs.

We ended up with the following SDGs and community names:

- SDG #1 No Poverty – *Wonderville*
- SDG #2 Zero Hunger – *Banana Capital*
- SDG #7 Affordable and Clean Energy – *Solar City*
- SDG #13 Climate Action – *Climate Stars*
- SDG #14 Life on Land – *Forest Haven*
- SDG #15 Life Below Water – *Ocean Maze*

I taught lessons throughout the year about the SDGs to help students understand how their choices affect the planet and the people who share it. The groups discussed and reflected on the SDG as they created their community, and deep learning occurred. Thoughtful discussions about how an end to poverty could be achieved, or the ways zero hunger could be accomplished, happened within each group.

With their future communities in mind, and keeping the connection to their SDGs, it was a challenge to think beyond current structures and realities. Students reflected on the need to protect animal habitats, forests, and oceans, and learned about energy systems. The SDGs were a helpful framework







"OUR RELATIONSHIPS (WITH EACH OTHER, WITH THE PLANET) NEED TO BE NURTURED, AND CHILDREN NEED TO BE TAUGHT. LISTENING DEEPLY TO CHILDREN, TEACHING THEM TO LISTEN TO EACH OTHER AND HELPING THEM UNDERSTAND UNIQUE PERSPECTIVES AND DIFFERENCES IS PART OF OUR WORK AS EDUCATORS."



for the children to understand complex topics about sustainability.

COLLABORATION

In addition to curriculum expectations, an important aspect of any real-life project is the opportunity to develop learning skills and work habits, as defined in *Growing Success*, the Ministry of Education's 2010 assessment and evaluation guide. The sustainable future community we created allowed students to understand and develop collaborative skills.

I applaud the words and thoughts of Nigerian writer and activist Bayo Akomolafe and Salvadoran feminist theologian Marta Benavides, shared in their co-published article *The Times are Urgent: Let's Slow Down* (full text available at bayoakomolafe.net).

"Though civic efforts have been worthwhile, they have done nothing to change our relationships with the planet, with people, and with ourselves; we are still tethered to the deadening values of consumerism, and have not reclaimed our roles as living co-creators of a society we prefer to live in.

If we beat the system at its own game, we've lost. It is no longer time to rush through the contested world blinded by fury and anger – however worthwhile these are. Now, we think, is the time to 'retreat' into the real work of reclamation, to remember again our humanity through the intimacy of our relationships. The time is very urgent – we must slow down."

Our relationships (with each other, with the planet) need to be nurtured, and children need to be taught. Listening deeply to children, teaching them to listen to each other and helping them understand unique perspectives and differences is part of our work as educators.

For this project, I created mixed-grade groups, taking into consideration social relationships, different abilities and special learning needs. I also wanted the students to take on different roles within the group.

The project roles were:

1. Project manager
2. Designer
3. Materials supplier
4. Accountant (Grade 5 role)
5. Measurer

The communities were each given a \$500,000 budget to use to buy their supplies (for example, part of an egg carton cost

\$3,000; a square Styrofoam slab cost \$20,000; a glue stick for a hot glue gun cost \$5,000).

One of the Grade 5 math expectations in the Financial Management section is to "design sample basic budgets to manage finances for various earning and spending scenarios," so I wanted my Grade 5 students to play a leading role. Collaborative problem-solving with financial implications encouraged the groups to really examine their needs. It forced the students to truly listen to each other about what they felt their projects needed and where their community was going.

MATERIALS

I wanted to ensure that the project was based on the use of recycled and reused materials. This was partially to think about how a future world can be created using what we have, but also connected to my own reflection about how our society, including our public schools, create a huge amount of waste.

I collected small boxes and plastic that cannot be recycled. I brought in egg cartons and cardboard and cut up Styrofoam left over from packaging. I had on hand bristol board, balsa wood, popsicle sticks and hot glue guns with the required glue. I also gave students a copy of their printed SDG to physically integrate into their community, so it would be obvious and informative to the audience when they shared their projects.

CREATIVITY

Each group was given a large piece of bristol board on which to create their community. Within it, they needed to have essential services (including food, health, education), a transportation system, recreation, at least one solar panel and sustainable technologies. Sustainable technologies could exist in the present or be created (for example, one group discussed the use of light waves as power and the possibilities of using sound waves as power). Projects also needed to include one three-dimensional building, allowing students to participate in hands-on innovation.

The communities created were all unique, and students were intentional about connecting their community to their SDG. For example, Solar City used both solar rays and wind power to create clean, sustainable energy. Wonderville had a school, café, food bank, a large hill constructed out of Styrofoam, as well as a UFO visiting town. Banana Capital, initially named as a bit of a joke, delved

into the issues surrounding hunger and built raised flats for transporting bananas.

Using the information learned, and then working together to apply that learning and do the hard, messy work of creating a sustainable future community was engaging, rewarding and fun. The students loved the project, and their engagement allowed me to circulate among the groups easily, supporting their inquiries and challenging their ideas. My trust in their abilities also deepened our teacher-student relationships and contributed to our classroom community.

COMMUNITY SHOWCASE

We concluded the project with a community showcase hosted in the school library, inviting other classes to come and see what we had created. Students shared their learning, inspiring other students with our future vision. Significantly, students spoke with pride and enthusiasm about their community's SDG. They learned that sustainability can be a priority for a community.

I invited parents to attend the showcase, as well as other adults who are part of my community (including former teacher candidates, a retired teacher friend and a community member). I also invited a few superintendents to see what the students had created and accomplished, as a way to celebrate their work.

The community-building aspects of the showcase were notable: students shared their work with a variety of grade levels, and inviting parents and community members deepened relationships. Students also began to see themselves as capable change-makers who can imagine, design and build more sustainable and caring communities for the future.

TOUCHING THE FUTURE

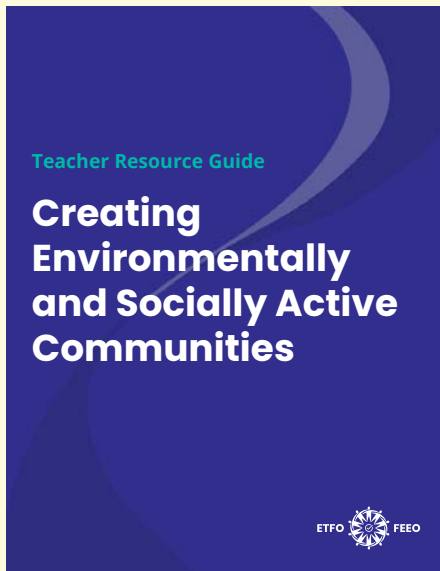
Many years ago, when I was a teacher candidate, we were asked to create posters in groups that provided direction for our teaching journey. One of the groups developed a poster that read:

"I touch the future – I teach."

I never forgot this small pedagogical exercise. Teaching students who will be alive in 2100 is a responsibility, for the lessons taught now will carry them forward. Developing realistic optimism for our planet, and then teaching our students the skills necessary to create that world, is our work. ■

Jen Reid is a member of the Halton Teacher Local.

GRADE 7: THE 5 Ws OF ENVIRONMENTAL RACISM



ABOUT THIS RESOURCE:

Climate change is a consequence of a colonial and capitalist system which has exploited people and the environment. The two struggles are inseparable. Many in the Global North may not be fully internalizing the impacts of the climate breakdown in this moment, however droughts, desertification and food insecurity as a result of climate change are happening now and disproportionately so to Black, Indigenous and people of colour. This resource invites students and educators to explore climate justice in intersectional ways

Find the full series at members.etfo.ca.

BIG IDEAS

- Laws and regulations for industrial waste disposal differ around the globe.
- People from different social and economic groups, geographic locations, and cultural groups are impacted by environmental factors.

FUNDAMENTAL CONCEPTS

Human activity disproportionately affects the health of some groups of people. This includes people who are Black, Indigenous, people of colour, and the economically marginalized.

CURRICULUM EXPECTATIONS

Grade 7 Geography

- Natural events and human activities that change Earth's physical features can have social, political, environmental, and economic consequences.
- Resource development is affected by social, political, economic, and geographic factors.
- There is a relationship between Earth's physical features and the distribution of natural resources and how people use these resources to meet their needs and wants.

Grade 8 Geography

- Quality of life and economic development around the world are influenced by various factors.
- Issues related to inequalities in global development and quality of life can have social, environmental, political, and/or economic implications.
- We can use measurable indicators to help us understand spatial patterns of wealth and development around the world.

Grade 7 Science

- Human activities have the potential to alter the environment. Humans must be aware of these impacts and try to control them.

Grade 7/8 Oral Communications

- Listen in order to understand and respond appropriately in a variety of situations for a variety of purposes.

Grade 7/8 Reading

- Read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning.

Grade 7/8 Writing

- Generate, gather, and organize ideas and information to write for an intended purpose and audience.
- Draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience.
- Use editing, proofreading, publishing skills and strategies, and knowledge of language conventions to correct errors, refine expression, and present their work effectively.

Grade 7/8 Media Literacy

- Create a variety of media texts for different purposes and audiences, using appropriate forms, conventions, and techniques.

Grade 7/8 Visual Art

- **Creating and presenting** – apply the creative process to produce artwork in a variety of traditional two- and three-dimensional forms, as well as multimedia artwork, which communicate feelings, ideas, and understanding using elements, principles, and techniques of visual arts as well as current media technologies.



“HUMAN ACTIVITY DISPROPORTIONATELY AFFECTS THE HEALTH OF SOME GROUPS OF PEOPLE. THIS INCLUDES PEOPLE WHO ARE BLACK, INDIGENOUS, PEOPLE OF COLOUR, AND THE ECONOMICALLY MARGINALIZED.”

CURRICULUM

OVERVIEW

Intermediate students are better able to consider the social inequities they see in the world around them. By learning about the impacts of industrial activities on people living in communities around the world, students will analyze these impacts using an equity lens. To build their understanding of allyship, students will be encouraged to offer advocacy as a way to support the work that the people impacted are doing on their own behalf.

BACKGROUND INFORMATION

For students: Students should be familiar with the following concepts:

- Advocacy
- Self-advocacy
- Allyship

For educators: It is essential that educators are familiar with the concept of environmental racism (a.k.a. environmental justice) prior to teaching this lesson.

Communities that experience intersectionality of environmental health effects, socio-economic challenges, and racialized discrimination are disproportionately impacted by environmental issues resulting from human activity, including resource extraction, production of goods, and the activities required to do these.

In preparation for this lesson, it is recommended that you familiarize yourself with the resources *Tracking the battles for environmental justice: here are the world's top 10* and the *Environmental Justice Atlas*, which are the research tools for this lesson.

Supplemental resources for professional learning: These additional resources provide a North American context for some important issues that have led to advocacy and action:

- *There's Something In The Water: Environmental Racism in Indigenous & Black Communities* by Ingrid R. G. Waldron examines the legacy of environmental racism and its health impacts in Canada, and the grassroots resistance activities against pollution by Indigenous and Black communities in Nova Scotia. The book is available from Fernwood Publishing and the documentary of the same name, based on Waldron's book, is currently available on Netflix.

Other stories of communities impacted by environmental racism include:

- Remember *Africville*, a short film available from the National Film Board
- Shelby Gilson's article for the Pulitzer Centre's project to amplify voices of the people of Grassy Narrows First Nation, who seek justice for widespread mercury poisoning in their community
- From the New School, an overview of environmental racism related to waste incineration in the U.S.

MATERIALS

Article: *Tracking the battles for environmental justice: here are the world's top 10*
Online map: *Environmental Justice Atlas - Global Atlas of Environmental Justice*
Computer and interactive whiteboard
Chart paper or whiteboard for notes

ESSENTIAL GUIDING QUESTIONS

- Why do some groups of people experience the health impacts of industrial activity more than others?
- What are the barriers that contribute to this?
- Do laws provide protection for people? Or do they make it easier for industries to operate without concern for humans?

LESSON PLAN FRAMEWORK

CONNECT

- Connect with students and their interests and experiences
- Connect students with each other
- Connect students with community (experts, resources)

Steps:

1. Connecting industrial activity to environmental impacts on people:

Walk around the classroom with a recycling bin and ask if students have anything that can go into recycling right now. Where does our recycling go after we toss it in the "blue box" and put it out for a truck? After it gets to the plant, then what? Use this question to shift the discussion to waste. What about trash, where does that go? Where are waste sites located? Who runs the landfill? What happens if the landfill gets "full" and there's no more space left; where

does the trash go then? What are some other ways that trash is disposed of? Take special note of any questions that may be left unanswered.

2. What are the industrial processes that are tied to making the things we need/want?

- Generate a list of industrial activities: this can include extraction/ harvesting of natural resources and any processing needed to get raw materials that we use in other industries; plants or processes used in production, packaging, and the ways we move materials and products from place to place. (Examples: forestry, paper making, mining, oil fields, fracking; nuclear plants, hydro-electric dams, coal-fired power plants; heavy equipment, trucking, rail, shipping, oil refineries; production of goods, agriculture, farming, animal production and processing.)
- What kind of resources do these industries need to operate? (Buildings & infrastructure, energy, water, raw materials, human workers.)
- Where are these activities happening? What kind of waste results from harvesting raw materials and resources, transporting them to where they are used, and making the products they are used for? List types of waste, brainstorming ways to categorize (e.g., biodegradable, waste that affects ecosystems, recyclable, non-recyclable, air pollution).
- What kind of waste impacts humans the most, and in what ways? Invite students to share any news reports or stories they have heard, identifying:
 - Who is affected by the waste and processes students identified?
 - What (if any) protections are in place for the workers/community (i.e., laws)?
 - Does everyone have the same protection, or are some people more vulnerable? Why, or why not?

EXPLORE AND EMPOWER

- Explore a variety of resources available to you
- Empower students to make meaning of the big idea

Steps:

1. Using the article *Tracking the battles for environmental justice*: here are the world's top 10, introduce students to the social conflicts around environmental issues that result from industrial activities and waste. Use the Environmental Justice Atlas to select one site to explore using Who/What/Where/Why/When prompts.

Ask students to consider:

- How can you share this information with others to educate them that things like this are happening?
- What advocacy/self-advocacy work are people doing to solve this problem?
- What is happening and who is doing it? How would people who aren't affected (allies) help to amplify the voices of people who are affected?
- Students will examine one of the issues on the Environmental Justice Atlas, answering Who/What/Where/Why/When from two perspectives: those who caused the impact or waste, and those who are affected by it. Challenge students to consider why it is harder for some groups of people to access these systems.

ACT AND ADVOCATE

- Create experiences in which students have engagement and agency
- Take action in your local community

Steps:

1. **Create a written report, a presentation using a platform such as Prezi, or a slideshow.**

- Students use their own words (no 'copy and paste' work).
- Provide reference information for the internet sources they use to get information.

2. **Use the 5 Ws to research and analyze an issue highlighted in the Environmental Justice Atlas.**

- Who is involved?
- What is the issue? What are the health and environmental impacts?
- Where is this happening?
- When was/is this happening?
- Why are some groups of people impacted more than others?

- **Compare & contrast:** Look at neighbouring areas (e.g., neighbourhoods, cities, regions, etc.). Why would certain areas be impacted more than others? What are the similarities and differences between areas that are impacted and areas that are not? Are there differences in the social, education, or economic resources that the people in these communities have?
- **Analyze:** What are the different perspectives on this issue? What is being done by the affected community(ies) to change this situation or problem? Are there allies who are already supporting the work that this community is doing? What might be the challenges for this community?
- **Act/share:** What can we do to advocate for people experiencing the injustice? Brainstorm some possible ways to help the community doing the work. Remember to honour the community voices you've learned about.

REFLECT AND SHARE

- Reflect on the big idea
- Reflect on learning that has occurred
- Share learning with others

Steps:

1. **Sharing the learning:** Provide time for students to share their products with classmates.

2. **Facilitated reflection: Community circle discussion**

- **My feelings:** Unpack students' feelings about environmental racism – how do they feel about these situations?
- **Self-advocacy:** What work is being done by the people who are impacted to address the injustice?
- **Allyship:** As an ally, how can I amplify the voices of the communities impacted?
- Create a space for students to share their responses. Use a bulletin board or chart paper with headings "My feelings," "Self-advocacy," "Allyship." Use sticky notes or index cards to write down a response for each of the three points; students will post their response under each.

REFERENCES AND RESOURCES

(Publications, websites, videos, downloads, etc.)

Websites:

- Environmental Justice Atlas
- Our Canada Project. A space to share with all Canadians the work you are doing, big or small, individually or collectively, to make Canada a better place.

Teaching Resources:

- Teaching about Allyship: Navigating the Conflict Zone and Becoming an Ally

News Articles:

- *New York Times*, "Your zip code and your life expectancy"
- *The Atlantic*, "Trump's EPA concludes environmental racism is real"
- Medium: Minority students are getting choked out by air pollution in Utah
- Grist: Fracking waste more likely to be located in poor communities and neighborhoods of Colour
- AP News: AP finds climate change risk for 327 toxic Superfund sites
- Google stories: Is it possible to save a rainforest by listening to it?
- CityLab: The Toxic Effects of Electronic Waste in Accra, Ghana
- The Hill: Black people are dying from corona virus—air pollution is one of the main culprits
- *New York Times*, "In the shadows of America's smokestack, virus is one more deadly risk"

OCTOBER REPRESENTATIVE COUNCIL

President David Mastin welcomed delegates to October Representative Council with a call to action on Bill 33, noting that anything we can do to put pressure on this government can help reduce the chances of the minister over-utilizing his powers to take over other local school boards.

“We have a minister of education who has openly called for eliminating elected school trustees. We all know that school board trustees aren’t perfect, but if this government is allowed to get rid of trustee elections that are scheduled one year from now, then none of us should be surprised if they then move to merge school boards or further centralize the administration of our schools,” he said. “The time for building our power is now. Talk to members. Build those bridges. And when the call comes, be ready to stand up and fight for our working conditions and for the public schools we all deserve.”

The guest speaker at Representative Council was Emis Akbari, executive director of the Atkinson Centre and professor and program coordinator at the School of Early Childhood at George Brown Polytechnic.



Reflecting on the centre’s most recent (2023) report on early childhood education, Akbari talked about the struggling national child care program and the fact the ECEs are the most underpaid and undervalued educators in Ontario, with the highest rate of attrition among education professionals. “Without

wages that respect and value ECEs,” she said, “the workforce will continue to suffer.”

Representative Council participants took part in facilitated discussion groups on barriers to the participation of Black members and how to engage Black members at the local level.



INTERNATIONAL WOMEN’S DAY T-SHIRT 2026

Celebrate International Women’s Day on March 8 and throughout the year! Back by popular demand, this year’s theme is “Advancing Change Together,” which reminds us that when we work in solidarity, change can happen in our schools, communities and at the polls.

Order by Jan.15 to ensure delivery of your T-shirt in time for International Women’s Day. Available now on shop.etfo.ca.

RESOURCES FROM SCHOOL MENTAL HEALTH ONTARIO

School Mental Health Ontario has free, downloadable social-emotional learning posters that you can use in your classroom.

Visit smho-smso.ca to check out all the great resources that are available, and subscribe to their newsletter for receive updates and information about student well-being.

ETFO AWARDS: APPLY TODAY

The ETFO Awards Program recognizes distinguished academic achievements and outstanding contributions to education and the Federation by members and others. Some awards include a financial component and all awards include a certificate of recognition from the ETFO president.

Learn more at etfo.ca/awards and apply by Feb.1, 2026.



MEMBER GUIDES TO ARTIFICIAL INTELLIGENCE

Four new guides have been created to empower members to thoughtfully explore the potential uses, risks and opportunities of artificial intelligence (AI) in elementary education; engage in informed dialogue; and make decisions that protect and advocate for their professional integrity and support student learning.

The guides can be found under Classroom Resources at members.etfo.ca.

ETFO CELEBRATES 15 YEARS OF DECE MEMBERS' COUNTLESS CONTRIBUTIONS



On Child Care Worker and Early Childhood Educator Appreciation Day (October 21), ETFO marked 15 years of Ontario's Full-Day Kindergarten (FDK) program and celebrated the vital role designated early childhood educators (DECEs) play in supporting and inspiring our youngest learners.

"We celebrate the 15th anniversary of ETFO's representation of DECEs and an FDK program that has transformed early learning in Ontario," said President David Mastin. "By bringing DECEs and teachers together in collaborative kindergarten teams, they provide the strongest possible start for our youngest learners."

MARK YOUR CALENDARS! DECE VIRTUAL TOWN HALL

Bring all your questions about membership services, ETFO advocacy, government relations, or anything else you want to know about your union to this virtual town hall for DECE members on Feb. 10 at 7:30 p.m.

Make sure you are subscribed to the ETFO e-newsletter to receive details and updates about this meeting. We look forward to seeing you there!



ETFO AWARDS PROGRAM

THERE IS SO MUCH FOR US TO CELEBRATE!

Nominate and Apply for an ETFO Award, Bursary or Scholarship

Every day, ETFO members make outstanding contributions to curriculum development, the arts, the environment, science and technology, children's literature, health and safety, equity and social justice, 2SLGBTQ+ realities, and humanitarian causes.

AWARDS

The ETFO Awards Program recognizes distinguished academic achievements and outstanding contributions to education and the Federation by its members and others. The ETFO Awards Program offers a financial incentive for some awards and a certificate of recognition from the ETFO President.

SCHOLARSHIPS AND BURSARIES

ETFO's Scholarships and Bursaries Program offers financial incentives to members and non-members entering faculties of education, members studying at the graduate level, and members upgrading their qualifications at publicly funded universities/institutions.

Member Awards

- Anti-Bias
- Anti-Poverty
- Anti-Racist and Equity Activism
- Arts and Culture
- Children's Literature
- Environmental Education
- Health and Safety Activist
- International Humanitarian
- Local Humanitarian
- Member Service and Engagement
- New Member
- Political Activist
- Professional Learning and Curriculum Development
- Rainbow Visions
- Writer's Award

Women's Program Awards

- Anti-Racist and Equity Activism
- Outstanding Role Model for Women
- Professional Learning and Curriculum Development
- Women Who Develop Special Projects in Science and Technology
- Writer's Award

Non-ETFO Member Awards

- Children's Literature
- ETFO Faculty of Education
- International Humanitarian
- Local Humanitarian
- Rainbow Visions
- Women Working in Social Activism on Behalf of Women and Children (Women's Program)

APPLICATION DEADLINES

Awards: **February 1**

Scholarships and Bursaries:
April 30

Scholarships and Bursaries

- ETFO Black Educator Bursary (open to non-ETFO members)
- Doctoral Scholarship
- Master's Scholarship
- ETFO Member Bursaries
- Bachelor of Education and Early Childhood Education Program (**NEW THIS YEAR**) Bursaries – For Children of ETFO members
- First Nations, Métis and Inuit Professional Learning Bursary
- Bursaries for Members of Designated Groups (also open to non-ETFO members)

Women's Program Scholarships and Bursaries

- ETFO Black Educator Bursary (open to non-ETFO members)
- Doctoral Scholarship
- Master's Scholarship
- Learning and Leadership Bursary
- Bursaries for Members of Designated Groups (open to non-ETFO members)
- First Nations, Métis and Inuit Scholarship (open to non-ETFO members)
- First Nations, Métis and Inuit Women in Education Bursary (open to non-ETFO members)



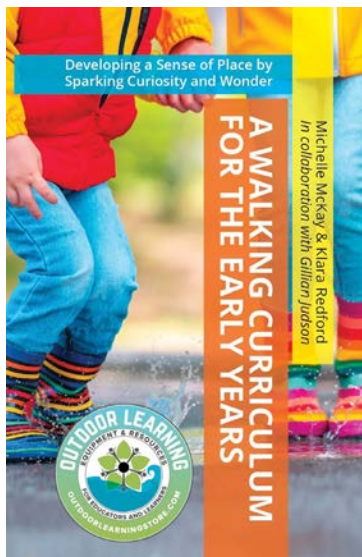
To apply, visit etfo.ca/awards

ETFO accepts **one application per applicant per year.**

For more information, please email awards@etfo.org.



REVIEWS



A WALKING CURRICULUM FOR THE EARLY YEARS: Developing a Sense of Place by Sparking Curiosity and Wonder

by Michelle McKay and Klara Redford,
with Gillian Judson

Outdoor Learning Store, 2023.

99 pages, \$35



Reviewed by Laura Di Nicola

A Walking Curriculum for the Early Years is an exceptional professional resource for educators who want to incorporate outdoor and environmental education while immersing themselves in Imaginative Ecological Education (IEE) and place-based learning. The book is filled with simple yet rich activities that engage students and educators while encouraging a deep and growing connection with the local environment and wider natural world.

I was excited to see my favourite walks from *The Walking Curriculum* reimagined for our youngest learners and was inspired to try a new walk from the book with my students the day after reading about it. Umbrella days are now some of our favourite days!

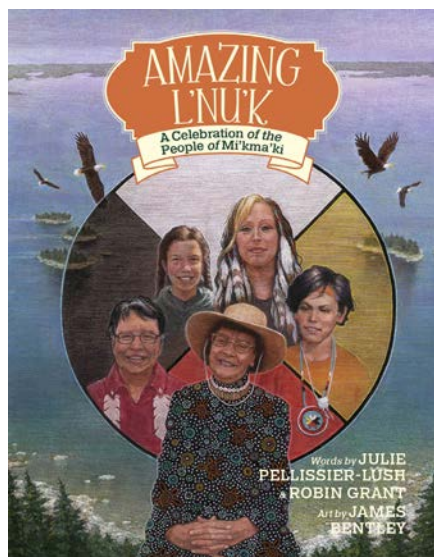
This resource is well laid out, including a chapter on planning and preparing for outdoor learning and a chapter on documenting active learning with students and reflective practice. Each walk contains a cognitive tool to focus on and is organized into three sections: minds on, the walk (including observation, communication and documentation ideas) and consolidation conversations. I found the list of mentor texts and extensions for play for each lesson especially useful.

While geared towards educators in Kindergarten and the Primary grades, the walks are easily adaptable for any grade to inspire students' sense of place and curiosity. Walks can be connected to the Ontario curriculum by creating a sense of belonging within the local and larger community, ecological awareness and responsibility, all while using scientific research and experimentation processing skills.

Numeracy and literacy are also woven into each walk. I appreciate that learning invitations in the book require little to no preparation of materials. Place-based learning within schoolyards, local greenspaces and neighbourhoods offers most of the learning materials you will need.

As a teacher and outdoor educator, I cannot recommend adding *A Walking Curriculum for the Early Years* to your bookshelves enough.

Laura Di Nicola is a member of the Grand Erie Occasional Teacher Local.



AMAZING L'NU'K: A Celebration of the Peoples of Mi'kma'ki

by Julie Pellissier-Lush and Robin Grant
illustrated by James Bentley

Nimbus Publishing, 2023

192 pages, \$24.95



Reviewed by Kristan Osborne

Amazing L'nu'k: A Celebration of the Peoples of Mi'kma'ki highlights the accomplishments and contributions of Indigenous people from Mi'kma'ki in eastern Canada. It explains the history and geographical locations of the Mi'kmaq territories, which include Nova Scotia, Prince Edward Island, Quebec, New Brunswick, Newfoundland and parts of Maine in the U.S. The book includes original colour illustrations, informative sidebars, a map of Mi'kmaq territories, a history of Mi'kma'ki, an index and a glossary.

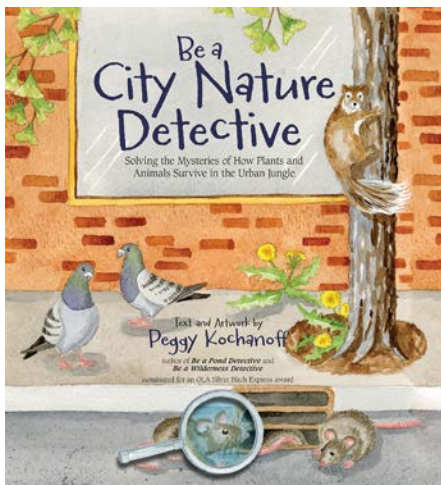
The beautifully illustrated book is divided into six parts, each offering a short biography of an influential Mi'kmaq person. These include historical and present-day activists, athletes, educators, Knowledge Keepers, scientists and entrepreneurs across a range of ages, from children to Elders.

The book also includes an introduction to the concept of *etuaptmumk*, or two-eyed seeing, which is the integration of Indigenous and western knowledge. Each story considers how people have supported their own communities locally, provincially and globally.

There are a number of Language curriculum connections with *Amazing L'nu'k*. In Language, grades 1-8: "Demonstrate an understanding of the contributions, lived experiences and perspectives of a diversity of individuals and communities, including those in Canada, by exploring the concepts of identity, self and sense of belonging in culturally responsive and relevant texts." Also, A3.3: "Explain themes explored in First Nations, Métis and Inuit cultures to demonstrate an understanding of the varied identities, perspectives, relationships, legacies, truths and ways of knowing, being and doing."

Amazing L'nu'k is a great resource for your classroom or school library. Students will enjoy this engaging and informative text as they learn about the Mi'kmaq people and the contributions they have made and continue to make.

Kristan Osborne is a member of the Peel Elementary Teacher Local.



**BE A CITY NATURE DETECTIVE:
Solving the Mysteries of How
Plants and Animals Survive in the
Urban Jungle**

by Peggy Kochanoff
Nimbus Publishing, 2018
56 pages, \$14.95

♥ ♥ ♥

Reviewed by Tina Buttineau

Have you ever wondered how plants and animals survive in the concrete jungle of the city? Peggy Kochanoff's *Be a City Nature Detective* explores the mysteries of how a variety species and organisms, from bedbugs to coyotes and burdock seeds to ginkgo trees, have adapted and are able to survive in urban settings.

The book is structured in a call-and-response format, where one page invites the reader in with a question and the answer is provided on the next. We learn how 16 different species can be found co-existing with us in the urban environment.

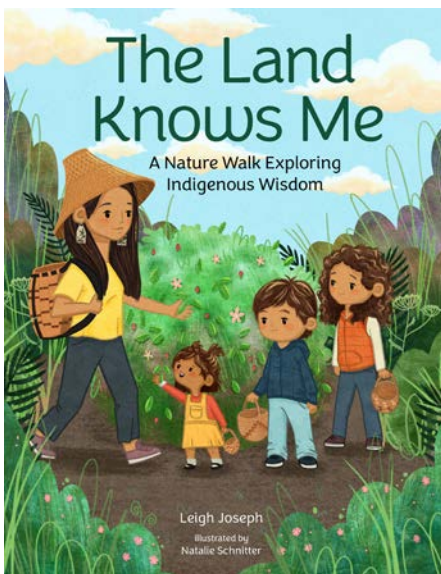
Not only does this text investigate how certain beings have adapted to survive in cities, but it also teaches readers about different species. We learn what they look like, where they grow/live, what the animals eat and where the plants originated. The book wraps up with a comparison between the night sky in the country and the city.

Kochanoff has illustrated this book with beautiful, eye-catching watercolour images. However, if the book is meant to help readers identify plants in the city, the illustrations

are not realistic enough. Looking at the images could provide the opportunity for students to research and compare photos of the real plants with the illustrations and discuss similarities and differences. The illustrations could also be used as an introduction to teach watercolour painting in visual arts. Students could look for examples in the text where Kochanoff has created different textures or added shadows and depth using paint.

While there are many connections to the Grade 2 (Growth and Changes in Animals) and Grade 3 (Growth and Changes in Plants) Science curriculum, the vocabulary in this text could be too challenging for Primary grades. It looks like a picture book but reads more like a textbook, and could in fact serve as a good introduction to textbooks for students, as it does have bolded terms throughout and a glossary at the back. This book is filled with information, from cover to cover.

Tina Buttineau is a member of the Bluewater Teacher Local.



**THE LAND KNOWS ME: A Nature
Walk Exploring Indigenous Wisdom**

by Leigh Joseph
illustrated by Natalie Schmitter
Becker & Mayer Kids, 2025
80 pages, \$25.99

♥ ♥ ♥ ♥ ♥

Reviewed by Teri Flemming

This lovely, informative book encourages you and your class to get out onto the land to explore the schoolyard, your community and the lands on which you live and learn.

Presented through an Indigenous lens, *The Land Knows Me* is written as a walk through nature where readers are gently guided to learn about plants from a traditional perspective. There are plants for eating, plants for healing and plants for building. All of them have significance and are respected and honoured.

I value that the book has informative sidebars and includes essential safety and proper harvesting practices. Discussions could open up around sustainability and ensuring you are giving back as a sign of gratitude and respecting the land and plants by only taking 10 per cent of the plant, not the first or last plant, or sometimes not harvesting at all.

I love using this as a read-aloud for a K-3 audience. The illustrations are colourful, vivid and full of detail that allow students to acquire plant knowledge. We often bring this book along during outdoor learning and have gone on our own plant medicine walks and had the students draw

and label the parts of different plants. We have used the cedar in our schoolyard to make both cedar tea and cedar jelly. We also found raspberries, dandelions, red clover and maple and talk about how these plants can be used for food and medicine.

There are more than 40 Squamish words to learn in this book. Educators can encourage students to look up the translations for the plants that they find in their school area as an extension activity using the helpful glossary, making the reader feel like they've learned something and had fun doing it.

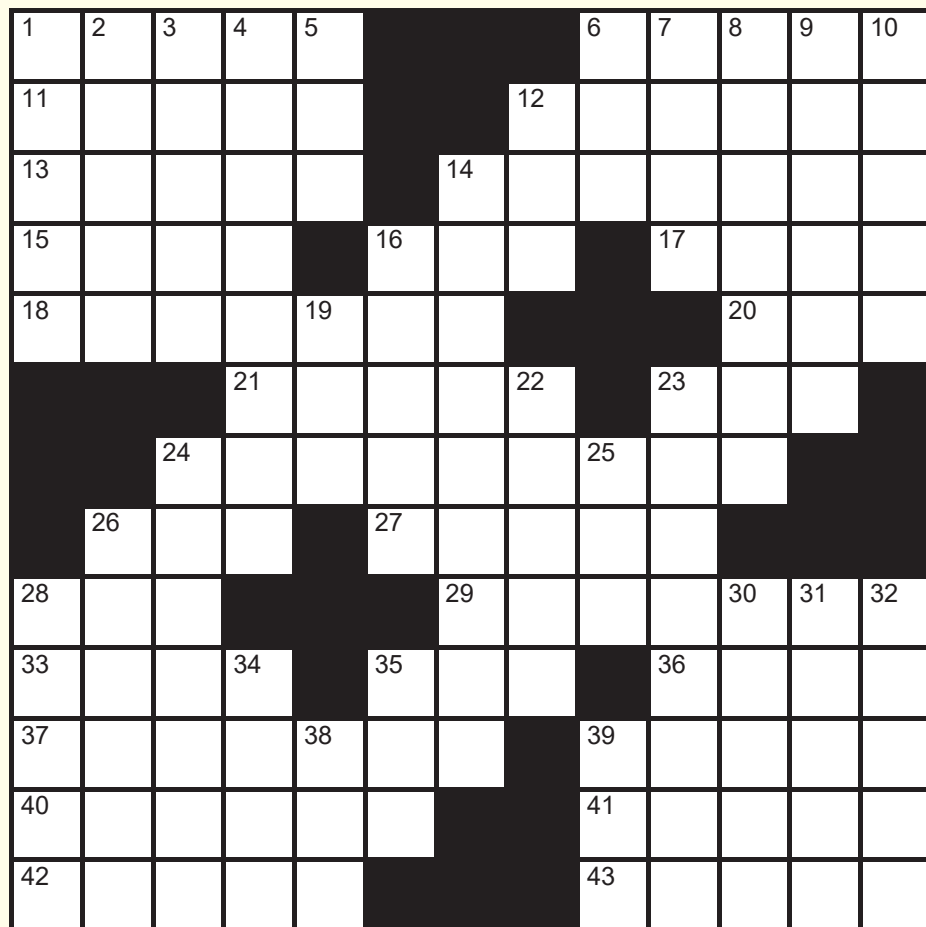
This book presents a wonderful opportunity to have children start thinking about their relationship with the land they live on and the plants that are around them. Reading this book reminds us about the importance of slowing down and appreciating nature, seasonal changes and the life that is all around us.

Teri Flemming is a member of the Renfrew County Teacher Local.

"PICK-UP RECYCLING"

BY ADA NICOLLE

INSTRUCTIONS: The answer is two words in this puzzle that, when combined, would make a good third theme entry. Email your answer to etfocrossword@etfo.org by February 15, 2026 for a chance to win prizes. Make sure you put the word "Crossword" in the subject line and remember to include your local with the information you send. The answer to last issue's puzzle was **READ**. Winners are Julianna Braukmann, Niagara Teacher Local; Mark Bourbonnais, Ottawa-Carleton Teacher Local and Alice Godfrey, Toronto Occasional Teacher Local.



ACROSS

- 1. Big name in retro gaming
- 6. ___ up (spoke up)
- 11. Primary
- 12. Cheese that's great for grating
- 13. Partner of conditions
- 14. Snuggled up together
- 15. Cookie used in some brownie recipes
- 16. Lower back muscle, informally
- 17. Large hunk of ice
- 18. *Animal that lends its name to an Albertan city
- 20. Ice ___
- 21. Picky ___

- 23. Travel like a vulture
- 24. *Flowering plant that sounds like a colourful horn
- 26. CO₂, e.g.
- 27. Org. with brain teaser books
- 28. "Trust your ___"
- 29. What the second word of each starred entry would be to its respective colour, if one letter was removed
- 33. Bar mitzvah, e.g.
- 35. Bit of poutine
- 36. Lima's country
- 37. ___-to-lovers (fanfiction trope)
- 39. Night sky phenomenon
- 40. ___ similar (alike... too alike)

- 41. Flared skirt
- 42. Gross
- 43. Assignments in an English class

DOWN

- 1. Part of a theatre production
- 2. Word that can fit any blank in the saying "___ is no ___"
- 3. Broadcasted
- 4. Makes over, as a house
- 5. Hypotheticals
- 6. Pea holder
- 7. Website with film information
- 8. Hoppy drink
- 9. What joules measure
- 10. Evade
- 12. Stuck in a ___
- 14. Colourful cartoon characters with "belly badges"
- 16. "They're not hurting anybody!"
- 19. Water, in French
- 22. Like some egg yolks
- 23. Fixture outside a school
- 24. Cake mixtures
- 25. School group for queer students, for short
- 26. West African country next to ___-Bissau
- 28. Part of RGB
- 30. Dance version of a song, e.g.
- 31. "You ___ kidding!"
- 32. Silences on Zoom
- 34. Discharge, as pollution
- 35. Tina of "30 Rock"
- 38. Texter's show of affection
- 39. Puma or ocelot



**Find all the resources on climate justice
and the environment in one place!**

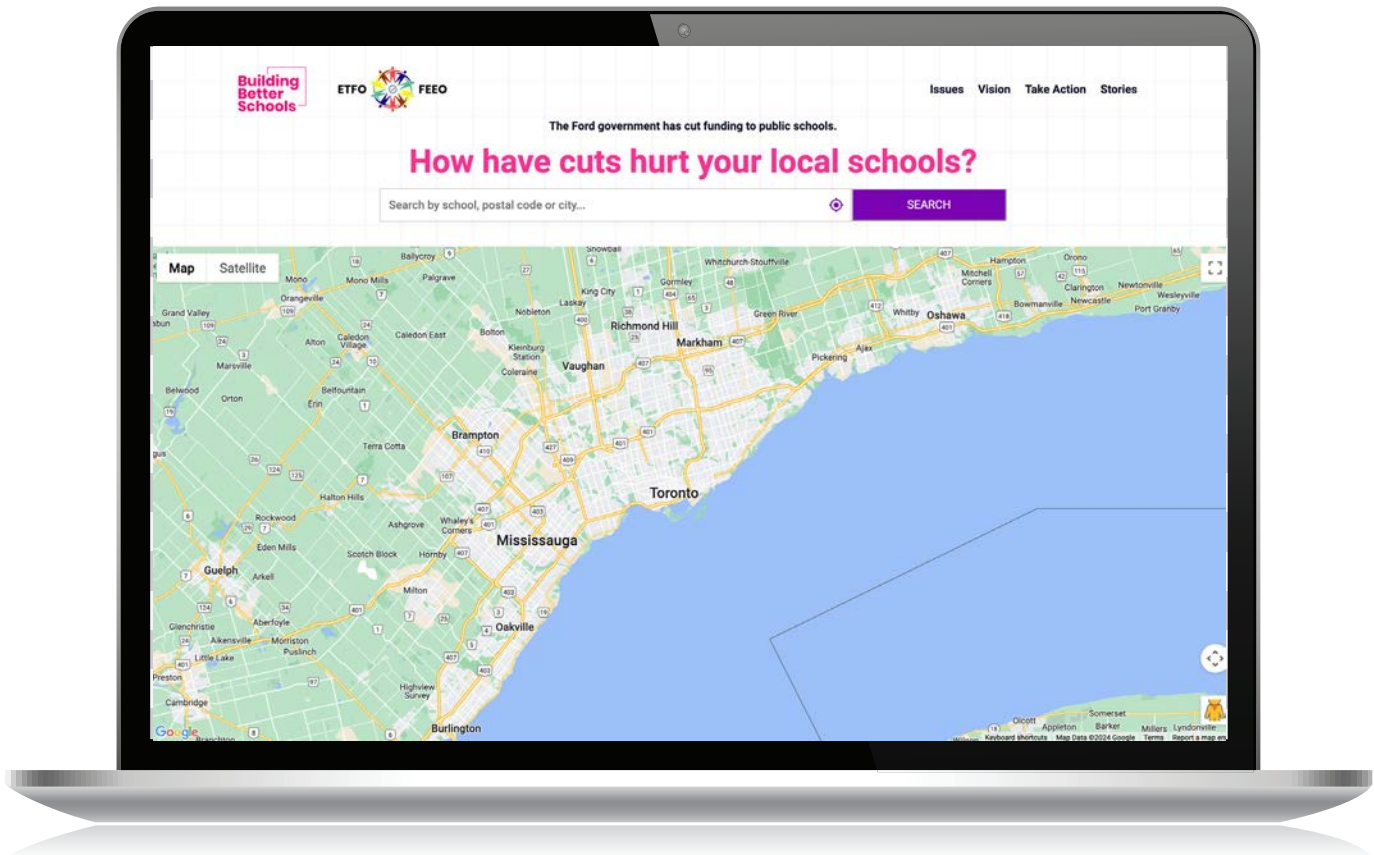


Are you looking for resources on environmental education?

Find everything in one place, including the Climate Change Primer, podcasts, significant environmental dates, Voice articles, and practical, ready to use lesson plans.

etfo.ca/socialjusticeunion/climate-change/environment-and-climate-justice

FIND OUT HOW MUCH FORD HAS CUT FROM YOUR SCHOOL



Adjusted for inflation, the Ford Conservative government has cut \$3,052.56 per student in every school in Ontario. That means larger classes, fewer resources and supports for students and educators. Find out how much has been cut from your local school at BuildingBetterSchools.ca and share the cuts-tracking tool with your community. Learn more about ETFO's plan for public education and see the videos and resources available to you.

Join the conversation at BuildingBetterSchools.ca



**Building
Better
Schools**



Complete insurance solutions for all members of the Ontario education community.

Get personalized service and exclusive education group discounts for all your insurance needs, including home, auto and leisure products. Plus, get a **\$20 gift card of your choice** when you get a quote!

Get an online quote at: **OTIPinsurance.com/ETFO20**
or call **1-866-625-5940** to speak with a broker and mention this offer.

Why OTIP?

- We have been an advocate for the education community for nearly 50 years
- As a not-for-profit broker, our revenue is invested back into the community through a variety of support programs and services
- Save up to 25% on car insurance, and up to 50% on your home insurance when you bundle both with OTIP*
- Access to our in-house claims experts, Curo Claims, available 24/7, 365



Restrictions apply. Visit <http://otipinsurance.com/etfo20> for full eligibility criteria and offer details.



136 Isabella Street
Toronto, ON M4Y 0B5
42409515