



WAYS GREENLEARNING
SUPPORTED YOUTH
CLIMATE ACTION IN 2023

Letter from the Leadership

Empowering Change: GreenLearning's 2023 Achievements

2023 was a remarkable year of progress and growth for GreenLearning as we continued our mission to empower youth through education on energy, climate change, and the green economy.

This year's annual report showcases four key highlights in supporting youth in climate action. From our annual action challenges, the launch of eCards and to our engagement and outreach supporting educators and inspiring youth to take action. You'll read about the inspiring Re-Energy: Electrifying the Future project, where high school students converted a 1975 Volkswagen Beetle into an electric vehicle.

We also featured our collaborations including our groundbreaking work with Indigenous Clean Energy (ICE) to produce a series of sustainable energy practice videos and receiving the Alberta Emerald Award.

Our reach with teachers and students across Canada continues to grow, with over 1200 new teachers accessing our resources and engaging over 7800 youth in our in-class sessions alone. Discover how our outreach events and partnerships provide students with invaluable opportunities to learn and engage in sustainable practices and to take part in the electrification of transportation.

Explore the pages ahead for detailed stories of our achievements, the programs that inspired young minds, the collaborative efforts and the generous support of our funding partners that made it all possible. Together, we're building a brighter, more sustainable future for all.

Warm regards, Kathy Worobec Executive Director, GreenLearning Canada



Overview of the Organization

GreenLearning creates free education programs about energy, climate change and green economy that engage and empower students to create positive change for our evolving world. Our programs include both hands-on and critical thinking activities to equip teachers with the educational tools they need to help students understand complex environmental issues.

To create our programs, we combine input from national surveys and consultations with teachers and education professionals to inform our program development and delivery. All of our lessons are reviewed with teachers and school boards and revised based on their feedback before we make them available.

Mission: To develop innovative teaching tools and rich educational experiences that empower youth to effect positive social, economic and environmental change in their own lives, schools and communities.

Vision: A generation of youth who are informed and inspired to actively create a sustainable and just world.



Our Philosophy



Create Change

Students identify and research issues that matter to them, and then create solutions. By building connections with experts and the community, they put their solutions into practice, and measure their resulting impact.



Inspire Educators

We have designed our materials to meet a broad range of curriculum expectations using an inquiry driven approach and an emphasis on leveraging technologies to meet learning outcomes.



Engage Youth

Our model focuses on building global competencies that are essential for youth to successfully navigate the evolving demands of life, work and learning in a world that is shrinking as the need for local actions grows.

2023 Main Highlights

We wanted to highlight four of the key ways GreenLearning supported youth in climate action in 2023.

#1 - GreenLearning Action Challenges

Young learners are key catalysts for a more sustainable future. Recognizing this, GreenLearning empowers students through our annual challenges as they embark on climate actions in their school and community.

By participating in a challenge, students apply their learning about the environment into tangible sustainability projects that are practical and beneficial to their school and community.

This year we hosted a series of environmental learning challenges: Re-Energy, Energy Revealed, Decoding Carbon, Flood:ED and Eco 360. Students made a great impact in their communities from creating a mural using recycled bottle caps to hosting lights out events to conserve energy! Learn more about our challenges and read about amazing student projects by heading over to our challenge showcase.

"This challenge ties our curriculum with real world problems and STEM in a very engaging manner." - Eco 360 Teacher



CHALLENGE IMPACT

From September 2022 to June 2023

Energy conserved if students plan implemented:

18,000 kWh

Number of Renewable Energy models built:

32

People reached through student sharing: 1600+



View the Challenge Submissions Showcase: https://programs.greenlearning.ca/submission-showcase

Challenge Student Work



"Participating in GreenLearning's Eco 360 challenge was an enlightening experience for us. The awareness of the damages caused by plastic waste was truly an eye-opener for the students...the resources were perfect to implement grade-appropriate lessons in the classroom."

— Jyothy Mathur, STEM Coordinator at Somerset Academy



"Participating benefited our students by having to **take it home** and **talk to their parents** about energy usage and how we can **make changes** at school and at home." — Energy Revealed Teacher

"You did a way better job {than I could have}, we didn't learn about this stuff when I was in school." — Energy Revealed Teacher

I love how applicable this challenge is to the Science 30 Alberta program of studies."

— Re-Energy Teacher







#2 - Electrifying the Future: The Journey of a 1975 Volkswagen Beetle

One of the standout achievements of 2023 was GreenLearning's Re-Energy: Electrifying the Future initiative. This program focused on increasing awareness, hands-on experiences, and promoting career opportunities in the growing field of electric vehicles (EVs). Students also led the conversion of gasoline-powered cars into electric vehicles (EVs) at Crescent Heights High School and the Career and Technology Centre. Students worked diligently on the conversion of a 1975 Volkswagen Beetle and a 2009 Ford Ranger into electric vehicles.

This hands-on experience not only enhanced students' technical and teamworking skills but also sparked their interest in sustainable transportation and the broader implications of electrification. The excitement and dedication of the students involved was truly inspiring, demonstrating the power of experiential learning.



Our partnerships with ZENO Renewables, Southern Alberta Institute of Technology (SAIT), University of Calgary's Relectric and ChargePoint were instrumental in the success of this forward thinking initiative, demonstrating the power of collaboration in connecting students with the broader community including visits to ENMAX Power Corporation to see their EV fleet operations, participation in the Charged Up Calgary Electric Vehicle Festival, and the World of Wheels event in Calgary and the installation of a charging station at Crescent Heights High School.



"GreenLearning's innovative program has provided my students with a one of a kind opportunity to apply and showcase their skills, and new skills. This is an extremely important program to have an internal combustion alternative and I am very proud to see all their hard work come together." — Cody Price, Automotive Teacher, Crescent Heights High School

#3- eCards





eCards enables youth to amplify their voices and take climate action in creative ways. eCards empowers youth to act for the climate by learning about environmental issues, creating informed messages, and acting on them. By sending an eCard to a decision maker, learners express what they have learned through their research and what matters most to them. Through art and writing, eCards supports environmental education and advocates for people to take meaningful, collective action. This new program created some unexpected opportunities as it helped educators engage disinterested students as they can showcase their creativity in a number of ways and it also showcases their interests. It is also available in French. In discussions with a teacher, we learned that it was the first time one of her students had submitted an assignment.

#4 - In The Classroom

In 2023, our virtual in class sessions created new ways to support youth in climate action. We offered numerous sessions throughout the year on a range of environmental topics from identifying misinformation to understanding flooding. Our virtual webinars, workshops, and presentations, led by industry experts, education leaders, and environmental professionals, made a significant impact by offering flexibility and convenience for educators.

Virtual Sessions Highlights:

- World Water Day "Flooding" with the Centre of Global Education
- Ripples of Change: Live Art with GreenLearning for Take
 Me Outside week
- Identifying Misinformation
- Understanding Flooding

These sessions were pivotal in empowering educators and students with the tools, knowledge and inspiration to lead change in their schools and communities. Educators could find these sessions on our **events** page and many used the recordings after the events to share with other classes or with their eco-clubs.



WORKSHOPS IMPACT

From September 2022 to June 2023



63

Workshop and presentation sessions



1004

Educators that attended our workshops and webinars



7894

Students that attended our sessions

Working Together



Empowering Future Leaders with Eco 360

The 2022-2023 school year marked the second full year of GreenLearning's Eco 360 program and challenge, and it's proven to be a transformative experience for educators and students alike. The Eco 360 program invited students to address real-world environmental issues by developing creative solutions to reduce plastic waste in their communities. To learn more about Eco 360's impact watch this <u>video</u>.

"In 2023, Dow proudly sponsored the Eco 360 Challenge, continuing our tradition of supporting initiatives that inspire and educate the next generation about environmental stewardship. This program aligns perfectly with our pillars of innovation and sustainability. By engaging students in hands-on, experiential learning, Eco 360 equips them with the knowledge and skills to tackle real-world environmental issues," — Adrianne Lovric, Public Affairs Manager, Dow Chemical Canada

In recognition of its impact, GreenLearning was honoured with the Alberta Emerald Award in the Public Engagement and Outreach category. Winning the Alberta Emerald Award also led to GreenLearning being featured in the Emerald Documentary Series, further showcasing the success of the Eco 360 program.



Steam PEI Partnership

In 2023, we began our partnership with STEAM PEI. We shared learning materials and experiences on engaging students in sustainable energy activities and they utilized our energy calculators with their new program for grade 6 students.

GreenLearning developed the culminating activity for this program, the Net Zero Community Design Challenge, and the guidelines were created to launch the program for January to June 2024.

Ready for a Challenge?

Submit your class design for a net-zero community and you could win \$1000 for your classroom!

Is your Grade 6 class participating in STEAM PEI's Sustainable Energy Integrated Curriculum?

Participants are eligible to submit their community designs made this school year (*September 2023 - May 2024*) to **GreenLearning's Net-Zero Community Design Challenge!**

The top three Challenge submissions will receive a cash prize of **\$1,000** for first place, **\$500** for second place or **\$250** for third place.



Partnership with the Canadian Music Centre

Thanks to the Laidlaw Foundation, we were able to partner with the Canadian Music Centre and the Boys & Girls Club Kawartha Lake to help youth connect with the people, heritage, and natural environment of their community through sound. Over eight sessions, the students explored their community, connecting with people, places and sounds, and understanding the process of composing music - with the goal of producing their own soundscape of their community.

Embracing Sustainable Innovation: GreenLearning's Collaboration with Indigenous Clean Energy

In 2023, GreenLearning embarked on a groundbreaking collaboration with Indigenous Clean Energy (ICE) to illuminate the path towards sustainable energy practices. This partnership led to the creation of a series of informative videos, showcasing advancements in electric vehicle (EV) technology and solar energy solutions.

<u>Electric Vehicles and Charging Stations at Six Nations of the Grand River</u> - Our first video took us to the vibrant Six Nations of the Grand River, a southern Ontario community near Brantford, rich in history and culture. Crystal Campbell, the Community Energy Champion with Six Nations and a graduate of ICE's 2020 Catalyst Program, guided us through the exciting developments in their community.

Harnessing the Sun: <u>Solar Energy Transition with Six Nations of the Grand River</u> - The second video in our series focused on the transition and implementation of solar technology within the Six Nations of the Grand River community.

Through these videos, we not only showcased innovative technologies but also celebrated the rich cultural heritage of the Six Nations of the Grand River. By integrating Indigenous perspectives with modern solutions, we strive to create a more inclusive approach to environmental stewardship.





From the Social Sphere!

Tag us in your conversations! @GreenLearning

Expanding Digital Reach and Engagement

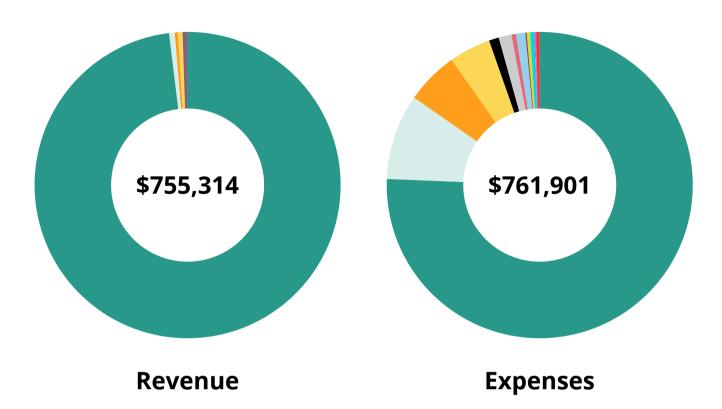
2023 saw significant growth in GreenLearning's digital reach and engagement, reflecting the continued need for our resources and programs. Our website received 37,442 users and over 142,000 page views, demonstrating the widespread appeal of our educational content. The number of newsletter contacts grew substantially to 6,084 expanding our community of engaged educators and students.

To access our free online resources, educators need to create an account. Since we launched our new website in 2021, the number of educator accounts in 2023 increased by over 1200 to 3609, indicating our success in reaching and supporting more educators across Canada. Video views reached 8,297 surpassing our ambitious target and highlighting the popularity and educational value of our video content. These positive metrics underscore the effectiveness of our digital outreach efforts and our commitment to providing accessible, high-quality educational resources.





Financials



- Grants
- Honorarium
- Individual donations
- Interest income
- Book Sales



- Wages and wage costs
- Project materials & supplies
- Contractor services
- Office
- Professional fees
- Amortization
- Computer support
- Travel
- Training
- Unrecoverable GST
- Insurance
- Advertising
- Interest and bank charges
- Board expense

Supporters and Collaborators

Volunteers

- Melie Monnerat
- Heather De Lagran
- Jen Farrell
- Kristina Castaneda
- Samantha Tascione
- Sari Oshada
- Ray Burrage-Goodwin

Workshop Hosts

- 10 Peaks Innovation Conference
- BC Digital Learning
- BC Science Teachers Association
- Calgary Board of Education
- Canadian Music Centre
- Canadian Network for Environmental Education and Communication (EECOM)
- Centre for Global Education
- Collingwood School, Sustainability Fair
- Dufferin-Peel Catholic District School Board
- Grand Erie District School Board
- Indigenous Clean Energy
- Inside Education
- Learning for a Sustainable Future
- Ocean School
- Ottawa-Carleton District School Board
- Outdoor Learning Store
- Peel District School Board
- Science North, ON
- Somerset Academy
- STEAM PEI
- Take Me Outside
- Toronto District School Board

Funding Partners

- Alberta Emerald Foundation
- Calgary Foundation
- Clean Foundation Science Horizons funded by Environment & Climate Change Canada
- Definity Insurance
- Direct Energy Marketing Limited
- Dow Chemical Canada
- Electricity Human Resources Canada
- Environment & Climate Change Canada through our partnership with Ocean Wise
- Government of Canada, Canada Summer lobs
- Government of Canada, Natural Resources Canada
- Government of Prince Edward Island's Climate Challenge Fund
- Indigenous Clean Energy
- Laidlaw Foundation
- RBC Foundation
- Sarnia Community Foundation
- Suncor Energy Foundation
- TD Friends of the Environment
- Trottier Family Foundation



Thank You!



















TD Friends of the **Environment Foundation**











Foundation





Donate to Support Environmental Education!

As a registered charity, GreenLearning relies on the generosity of donors and sponsors to expand our reach to educators and students across Canada. In the face of the ongoing global climate crisis, increased levels of eco-anxiety and an evolving workforce, supporting youth in their journey towards sustainability is more crucial than ever. If you're passionate about equipping the next generation with the critical thinking skills needed for a rapidly changing world, we invite you to contribute and help us make a lasting impact.



Help us support youth climate action. Donate today! https://greenlearning.ca/donate

Land Acknowledgement

GreenLearning's head office is located on Treaty 6 territory, the traditional meeting grounds, gathering place, and traveling route to the Cree, Saulteaux, Blackfoot, Dene and Nakota Sioux and home to the Métis Nation of Alberta, Region 4.

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