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TEN CANADIAN SCHOOLS' STORIES OF CLIMATE ACTION

Promising Practices from the 'Getting
Climate-Ready' Project



UNIVERSITY OF SASKATCHEWAN
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A companion report, outlining the full evaluation results is entitled “Building Climate-Ready Schools in Canada: Towards Identifying Good Practices in Climate Change Education,” and may be found on CCUNESCO and SEPN’s websites. The full evaluation also includes comparative data on climate action taking place in schools that did not participate in the pilot project.

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GETTING CLIMATE-READY

THE UNESCO ASSOCIATED SCHOOLS NETWORK



Climate change poses a major threat to humanity and the environment. Climate change is a pressing issue because it affects where people can live, grow food, and be part of healthy ecosystems.

This document outlines a collection of promising practices of climate action taking place in 10 Canadian UNESCO Associated Schools. These 10 schools participated in a worldwide UNESCO pilot project to implement climate action as recommended in the UNESCO (2016) publication, *Getting Climate-Ready: A Guide for Schools on Climate Action*.

The UNESCO Associated Schools Project Network (herein referred to as ASPnet) links educational institutions across the world around a common goal: to promote quality education in pursuit of peace and sustainable development. ASPnet is recognized by UNESCO as an effective mechanism for contributing to Education 2030 Sustainable Development Goal 4 - to achieve target 4.7 on Global Citizenship Education (GCED) and Education for Sustainable Development (ESD), as well as Sustainable Development Goal 13 on Climate Action - to achieve target 13.3 on climate change education.

In 2016, UNESCO began the “Getting Climate-Ready” pilot project in 25 countries to support ASPnet schools’ implementation of Education for Sustainable Development (ESD) and climate action to reduce the effects of climate change. The ASPnet Climate Change Project spanned two years (2016-2018) and mobilized comprehensive and coordinated action in approximately 10 schools in each of the 25 participating countries. Worldwide, the project reached approximately 200,000 students and 12,000 teachers (UNESCO, 2017).

THE WHOLE SCHOOL APPROACH

Ten Canadian ASPnet schools worked to incorporate climate action into every aspect of school life using the *Getting Climate-Ready* guide. This guide is organized according to the “whole school approach” and promotes creating climate actions in four domains via actions such as:

SCHOOL GOVERNANCE

The entire school and its leadership have an overall focus on climate action and a culture of sustainability, which may include:

- Conducting a self-assessment of current climate action at the school
- Establishing a climate action team
- Creating a climate action plan and/or including climate action in the school’s strategic plan
- Including climate action in the school’s mission, vision, and values statements

TEACHING AND LEARNING

Climate action is included in all academic courses, inside and outside of the classroom, such as:

- Incorporating climate change into all subjects
- Teaching critical, creative, and futures thinking skills
- Providing opportunities to learn about, through, and from climate action

WHOLE SCHOOL APPROACH



SCHOOL CULTURE OF SUSTAINABILITY

FACILITIES AND OPERATIONS

Schools become a model of climate action through changes to physical buildings and school campuses, which may include:

- Planting native flowers, trees, fruits, and vegetables
- Turning off lights and electronics when not in use
- Buying products that are local and/or made ethically
- Encouraging students and staff to use more sustainable transportation, bringing litterless lunches, and conserving water

COMMUNITY PARTNERSHIPS

School engages and partners with the community on climate action projects, which may include:

- Collaborating with other schools, neighbourhood associations, local businesses, local organizations, and networks on climate action
- Partnering with the broader community to take learning outside the classroom (e.g., student action projects based on a real-life need of an environmental group, field trips to measure biodiversity, hosting community events)

COLLECTING PROMISING PRACTICES

This report presents stories of climate action occurring in the 10 CCUNESCO ASPnet schools that participated in the *Getting Climate-Ready* pilot project. Data were collected from ASPnet facilitators in each of the 10 schools that participated in the *Getting Climate-Ready* pilot program. Eight of the pilot schools were located in the province of Québec, one in Saskatchewan, and one in Ontario.

Data collection for the evaluation took place via a 20 minute pre-interview survey, as well as semi-structured telephone interviews which lasted between 60-90 minutes. Recruitment efforts were directed to all ASPnet facilitators in each pilot school, and one facilitator from each school completed the survey and interview. Data collection took place between March and April 2018.

PROMISING PRACTICES: STORIES OF CLIMATE ACTION

The 10 CCUNESCO ASPnet “Getting Climate-Ready” pilot schools have made significant steps towards becoming ‘climate-ready.’ The following stories highlight some of the most exciting climate action initiatives taking place in the 10 participating pilot schools.

The climate action initiatives happening in each school are organized according to the four whole school domains. Each domain is indicated by the coloured bars on the left: **governance** in green; teaching and learning in **orange**; facilities and operations in **blue**; and community partnerships in **purple**, although the domains often interact with one another in the initiatives discussed. We also describe the drivers and barriers encountered in each school and the impacts of the school’s climate action initiatives (**red** bar).

Finally, the stories also discuss how the initiatives relate to current literature on promising practices (**black** bar). Traditional approaches to climate change education have tended to focus on improving understanding the science of climate change or on changing individual values, beliefs, or behaviors. Evidence¹ suggests, however, that higher levels of scientific knowledge do not automatically increase climate belief or action and climate change beliefs only moderately affect climate actions. While the field of climate change education is still in its early stages, evidence to date suggests ‘good’ climate change education should focus more on socio-emotional learning and the cultural contexts in which the learning occurs.

¹ This evidence-base is discussed in greater detail in a companion report outlining the full evaluation results entitled, “Building Climate-Ready Schools in Canada: Towards Identifying Good Practices in Climate Change Education.” This report is available for download on CCUNESCO and SEPN’s websites

BRUCE PENINSULA DISTRICT SCHOOL

Simply Living Simply

LIONS HEAD, ON

SCHOOL FACILITATOR: TERRI MUNN

Simply Living Simply is a comprehensive program driving climate actions across all four whole school domains. As part of this program, the entire K-12 school completed ten monthly challenges focused on climate action during the 2017-2018 school year. The projects supported what students were learning in class and involved parents and community members. To ensure everyone stayed on track, the school kept tally sheets of climate actions and had one student elected by each class to make sure climate actions were being taken. The school also has an eco-team comprised of Grade 7-12 students who would check-in with teachers who had not reported many climate actions and visit classes that could improve their waste sorting. Teachers also supported each other by collaboratively deciding on topics and activities to include in their classes in staff meetings, challenging each other to ensure lessons were related to climate change.

In the classroom, inquiry-based projects helped students learn critical thinking skills and how to engage with others who may hold differing views. Each elementary class was responsible for a monthly climate change theme and for developing three challenges for the school and local community. The secondary school watched documentaries and hosted guest speakers on climate change, and older students mentored younger ones by explaining climate science to them. Students also discussed climate protest marches to highlight how Indigenous peoples are international leaders in climate action.

Students also learned about sustainability outside of the classroom. For example, during the month-long "Get Moving" challenge, students went on five meaningful community hikes in their outdoor education class. "Get Moving" encouraged students to participate in more sustainable leisure activities, such as canoeing, hiking, and paddle boarding instead of using snow mobiles, sea-doo's, and four wheelers. The "Get Moving" challenge, helped students make connections about how sustainable forms of leisure activities improve physical and mental health.



Student Protest Art

Students in Grades 1 and 2 were in charge of school composting and students in Grades 4 and 5 were responsible for recycling and were also members of the eco-team. In 2017-2018, the school eliminated plastic straws and water bottles, and switched to biodegradable cutlery in their cafeteria. The school also gave away reusable water bottles to all students; applied for a grant to install a salad bar that served local produce; and conducted lighting, energy, and waste audits. As a result of the waste audit, the school realized they needed to work on cafeteria operations in relation to sustainability.

After identifying problems related to composting and summer garden maintenance, students organized a symposium to brainstorm solutions with the school and 10 local experts from the community. The school also supported a local farmer who provides produce and eggs to the teacher lunchroom and had a partnership with the Bruce Peninsula Environment Group. To extend the school's messaging about the importance of climate action to the broader community, the school has also shared their learnings in a variety of ways, including through two websites (<https://www.bpdslivessimply.org> and goo.gl/WPPBTJ), Facebook posts, and articles published in the local newspaper.

Implementing Simply Living Simply was made easier due to the well-established culture of sustainability at Bruce Peninsula District School. The school's status as an Ontario EcoSchool also supported implementation of certain activities, for example, through existing waste audit templates. The school's partnership with the Bruce Peninsula Environment Group, and close proximity to a biosphere and national park has also supported climate actions. The school's work on reconciliation has made it easier to connect climate action to Indigenous perspectives. All in all, the project generated excitement as the school community worked together on climate action.



The Simply Living Simply Website Homepage

One of the biggest challenges the school faced was getting their messaging about climate action out into the broader community. While the school shared their learnings in a variety of ways (e.g., monthly whole school climate change assemblies, websites, social media, local newspaper), engaging beyond those who are already engaged in climate action and sustainability meant attending rotary club and church group meetings as well as community presentations. Maintaining their websites was sometimes a challenge due to the school's rural location and spotty internet connection.

The Simply Living Simply project has already resulted in several meaningful impacts. For example, many staff members and students have changed their behaviors by bringing litter-less lunches, sorting their waste better, and turning off classroom lights when not in use. Changed student behavior has often been due to students realizing they need to change their habits to be in line with best practices at their school, not because teachers tell them what to do. The school has also seen large reductions in the amount of plastic in their building and is continually improving its selection of local and healthy foods within their cafeteria. Bruce Peninsula District School has engaged both other schools and the public in climate action.

At Bruce Peninsula District School, climate action has been fully integrated across all four whole school domains and a variety of promising practices have emerged. All school community members were included in the Simply Living Simply program, as recommended in the *Getting Climate-Ready* guide, which provided structure to the program and kept all involved accountable to the project goals. Initiatives were student-led through mentoring programs and club activities, making this project more meaningful for students. Inquiry-based projects, such as the one used by Bruce Peninsula District School, have also been effective pedagogical tools for teaching about controversial environmental topics, encouraging the discovery of truths and fostering critical thinking skills. Students were also supported to deal with negative emotions associated with climate change, which has been recognized as essential to 'good' climate change education. The Simply Living Simply project at Bruce Peninsula District School emerged from a grassroots collaboration of the entire school and local community, which helped ensure maximum local impact.

ÉCOLE SECONDAIRE CAVELIER-DE LASALLE

On the Road to Zero Waste

MONTRÉAL, QC

SCHOOL FACILITATORS: ALAIN LAVOIE, MÉLANIE LANGEVIN, AND BRIGITTE CHAUVETTE

At École Secondaire Cavalier-De LaSalle, reducing waste is serious business. After installing an industrial composter, the school redirected 176 kg of waste as compost in 2017, and 200 kg of waste in 2018. The school has also been reducing plastic waste by selling reusable water bottles in the 2017-2018 school year, which were fillable at the school's bottle fountains.

Climate actions at École Secondaire Cavalier-De LaSalle are supported, in part by the Green Brigade, a committee comprised of 30 students. The Green Brigade sells reusable water bottles and monitors the compost station in their cafeteria. The students' teamwork and dedication is also supported by other school initiatives such as the "Festival of Us," which was guided by the idea of "learning to live together."



Monitoring the Compost Station

The school also engages in other activities to promote a sense of community. For example, the school has shared compost produced from cafeteria meals with local elementary schools to use in their gardens. The school's composting was also further supported by a close partnership with the city of Montréal.

At École Secondaire Cavalier-De LaSalle, students taught each other how to compost by monitoring the cafeteria's compost station. In addition to learning how to sort and manage waste during meal times, students also learned about human links to ecological concerns as well as the causes and effects of climate change in their classes. For example, students watched videos about plastic waste in the oceans, and learned how long different materials take to break down and produce greenhouse gas emissions in the process.

Climate action at École Secondaire Cavalier-De LaSalle has allowed the entire school community to collaborate on waste management and the school takes great pride in their composter. Climate actions at the school are motivated by their close proximity to the Lachine Rapids park, "an international treasure," which local organization, Heritage Laurentien, promotes in the school. Ensuring students understand the importance of sorting food and recyclables correctly has been the largest challenge, but having students teach each other has helped significantly.

Students at École Secondaire Cavalier-De LaSalle have come to understand that you have to take action to make a difference. Students are making healthier choices by drinking more water and now pay more attention to the food on their plate after discussing the impact of fertilizers and pesticides. Food and the management of food waste is one thread in the fabric of unity among this school community.

Climate action practices at École Secondaire Cavalier-De LaSalle are supported by school pride as well as dedicated teachers, students, and principal. Everyone collaborates, and no one person is more important than the other. Such diverse inclusion is a key recommendation in the *Getting Climate-Ready* guide, and represents a promising practice in climate change education. Many teachers found the *Getting Climate-Ready* guide helpful for planning courses, especially Civics and Geography subjects. Some teachers even gave the guide to students to read for themselves. At École Secondaire Cavalier-De LaSalle, climate actions across domains centered around reducing waste and pollution. Where possible, these initiatives were student-led and supported by the school's overall direction, classroom-based learning, and broader community engagement.

COLLÈGE BOURGET

Enterprising for the Earth and Society

RIGAUD, QC

SCHOOL FACILITATORS: ISABELLE BERGERON AND JEAN-SÉBASTIAN DE LA CHEVROTIÈRE

At Collège Bourget, the school's greenhouse has created a social economy enterprise where students operate the greenhouse and grow herbs and vegetables, as some of which are used in the school's cafeteria. This project paired well with an existing initiative where students design and market glass jars using honey from beehives located near the greenhouse. Collège Bourget's Grade 7-11 students were involved in the greenhouse and beehive project, and elementary students planted a small vegetable garden.



The project's main goal was to teach students to operate a greenhouse using sustainable development principals. In addition to learning teamwork skills, students learned entrepreneurial and marketing skills by selling plants. This learning carried over into the cafeteria where everyone now sorts their scraps into separate containers for trash, composting, and recycling. Sorting food waste also encourages students to think about waste reduction.



Working in the Greenhouse

The project has involved several community partnerships. The project was made possible by a generous grant from the school's community partner, Desjardins Foundation. Collège Bourget also donated plants to Café de la Debrouille, an organization that helps disadvantaged families. As a result, the local community has been able to enjoy the school's yields.

The school's leadership, including the Board of Directors, has been very supportive of climate action projects at Collège Bourget. Additionally, a grant from the parents' committee allowed the school to purchase the cafeteria's composting bins. The school's UNESCO committee was particularly involved in the implementation of the greenhouse climate action project. Finally, the school's designations as UNESCO and École Verte Brundtland schools were also integral in garnering enthusiasm for this project.

Climate actions at Collège Bourget were partially driven by the realization that the local community was vulnerable to the impacts of climate change after several staff members and students suffered from flooding. The school community and several community partners has also provided financial support and ways to take action outside the school. The school's location at the foot of a beautiful mountain also acts as a motivator. Funding and time were the main obstacles to Collège Bourget's greenhouse project. The school has also developed a well-defined action plan to help if they encounter resistance. Integrating climate action within courses would also have been easier if more classroom-ready resources were available.

Collège Bourget used the *Getting Climate-Ready* guide to get ideas for involving teachers in different projects, but their main climate action project has been the greenhouse. A promising practice in this project was teaching students that they can do things daily to address climate change. Student empowerment is particularly important as it can be easy to feel as though there is little individuals can do to tackle an issue as big as climate change. The greenhouse's impact has also extended beyond the school's walls, educating teachers, parents, and the community about the necessity of climate action. Involving multiple groups in fighting climate change is important for avoiding individualized solutions to systematic issues. The greenhouse is a truly inclusive climate action project that gives to all and keeps on giving.

ACADÉMIE DES SACRÉS-CŒURS

Carbon Exchange Scholarship Program

ST-BRUNO-DE-MONTARVILLE, QC

SCHOOL FACILITATORS: EVELYNE GOSSELIN AND MARC MICHEL

At Académie des Sacrés-Cœurs, Grade 4 students were trained greenhouse gas (GHG) investigators. These GHG private detectives learned how to reduce carbon emissions in their schools and homes through the Carbone Scol'ERE program. Students earned carbon credits by making commitments to reduce GHG emissions, and then organizations have been able to buy those credits to offset their emissions. The credits also funded workshops to teach students about eco-friendly lifestyles. The entire school also had ten climate change related challenges which teachers could incorporate into their classes.

This climate action project evolved quite naturally. When the school governance committee met to talk about possible climate change projects at the beginning of the year, they decided on the ten challenges because it fit with what teachers were already doing in their classes. This project was further supported by a student committee which developed ideas to tackle the challenges. The Carbone Scol'ERE program was initially an extracurricular activity for about 20 students. When the idea was presented to teachers, however, they decided to expand the program due to the ease of implementation.

The school-wide challenges and Carbone Scol'ERE program directly focused on reducing GHG emissions. Another project related to reducing emissions called, "Buy local, buy organic," used connections with the organization, Equiterre, to sell local and organic vegetables as a fundraiser. The school also plans to switch to more efficient lighting systems, and already switched to more efficient heating systems.

Académie des Sacrés-Cœurs' rural location makes it difficult to collaborate with local organizations, however, they have partnered with national and international organizations. For example, the school partnered with Cyclo Nord-Sud, an organization which collects used bicycles for individuals in countries. The school's ten challenges project structure was also inspired by another UNESCO school that uses monthly challenges.

Académie des Sacrés-Cœurs' designation as a UNESCO school motivated them to undertake this project. The project also fit into the school's existing culture of sustainable development and was aided by support from management, staff, teachers, and parents. The school's location near a protected park has also inspired environmental stewardship. Implementing Carbone Scol'ERE was quite easy as the program provides teaching resources. While the cost of Carbone Scol'ERE was initially a barrier, the school found sponsors to support the project. Some teachers were reluctant to participate because they were involved in a lot of programs, however, overall the school was very motivated. These climate action projects impacted students, parents, and community members.



Selling Local Vegetables

The governance committee used the *Getting Climate-Ready* guide as a starting point to decide on climate actions to take. A UNESCO facilitator at Académie des Sacrés-Cœurs suggested having a presentation by someone outside the school about the pilot project would have been helpful. Overall, Académie des Sacrés-Cœurs was successful in mobilizing their entire school in climate action by accessing classroom-ready resources and providing teachers with the freedom to incorporate climate change topics in a way that made sense to them.

ÉCOLE DES AMIS-DU-MONDE

Carbon Exchange Scholarship Program

CÔTE-SAINT-LUC, QC

SCHOOL FACILITATORS: VANESSA MERILEE VEILLEUX AND LOREDANA NIMARA

At École des Amis-du-Monde, the Carbone Scol'ERE program has taught students eco-friendly behaviors through classroom activities and workshops. Students at École des Amis-du-Monde have also made commitments to reduce greenhouse gas (GHG) emissions as part of the program. As part of the program, the school receives “educational carbon credits” which have funded workshops for the Grade 3 and 4 students. In addition, a school-wide survey taught students about their carbon emissions and responsible consumption.

The Carbone Scol'ERE program fit well with the school’s existing climate actions, such as the school’s garden, recycling, and composting programs. Students were also taught healthy lifestyle habits and encouraged to bring waste-free and healthy lunches. Overall, the school has significantly reduced GHG emissions as evidenced by their second-place ranking in the Carbone Scol'ERE program.

Students at École des Amis-du-Monde also extend climate action outside classroom. In particular, they have reached out to the broader community to join them in living green lifestyles through a website targeted to family and community members. School initiatives are also supported by a partnership with the City of Côte Saint Luc as the city is supportive of climate action. The school also partnered with other local schools for a UNESCO symposium day and exchanged information about climate action projects with their UNESCO colleagues.

At the beginning of the climate action pilot project, the school used the *Getting Climate-Ready* guide to evaluate what they were already doing in relation to climate action and highlight areas for improvement. This time of reflection laid a solid foundation for the project and was supported by their green committee, which worked in parallel with the student council. The school has also engaged parents in planning climate action projects.

The Carbone Scol'ERE program fit in well with the school’s existing culture of sustainability, and the school’s location within a supportive community further bolstered this program’s success. The school administration and teachers are also very supportive of the program, and there is a lot of enthusiasm at the school about the project. As with many other schools, time and money can act as barriers that determine what climate action projects can be done within the year. There are many things to cover in courses which compete for available time to engage in climate action projects. New staff can also experience an adjustment period due to not being familiar with the overall culture of sustainability at École des Amis-du-Monde and being required to take in a lot of new information. At École des Amis-du-Monde, the entire school community has been mobilized to become involved in GHG reduction and eco-friendly lifestyles. Since it began, the project has expanded from 20 people to over 200 people!

The *Getting Climate-Ready* guide was used at École des Amis-du-Monde to evaluate the school’s existing climate action activities, and to help set goals. This type of reflection and planning is recommended as an essential component to incorporating whole school approaches to climate action. The *Getting Climate-Ready* guide’s focus on the four whole school domains also helped École des Amis-du-Monde ensure the school’s climate action approaches were comprehensive. The school reports using the guide extensively, and as a result all classes and all students have been exposed to the guide at some point.

COLLÈGE DUROCHER SAINT-LAMBERT

Student-Led Climate Change Committees

SAINT-LAMBERT, QC

SCHOOL FACILITATORS: INGRID LE FORT AND JOHANE BEAUPRÉ

At Collège Durocher Saint-Lambert, student committees help educate the student body about climate action. Student committee members research climate issues with a teacher's support then visit all classes to share their knowledge. Two student committees, consisting of about 10-12 students each, have been dedicated to environmental issues. In the 2017-2018 school year, student committees focused on issues such as recycling, composting, and the environmental benefits of vegan diets. The school has two buildings, so they had one environmental committee for each building to ensure climate action impacts all students.

Committee members used a variety of techniques to educate other students, but they found awareness booths, simulation games, and a blog about the school's activities (<https://cdslunesco.wordpress.com>) were particularly successful. The entire student community has benefited from the committee members' research. Students have also developed a stronger sense of inquiry due, and have become better at expressing their ideas about climate action and convincing others of their viewpoints.

This initiative is also supported by partnerships with organizations outside of the school. In particular, the school partnered with the "unis" movement, which encourages people to take action on social and environmental issues and to inspire others to also take action. Due to this partnership, the school also had a unis committee, which organized a march for water. Issues related to water have been particularly salient for some students at Collège Durocher Saint-Lambert, as the city's water tank has potability issues. The school has used this local example to raise awareness that not everyone has access to clean water.



Student Committee Members Raising Awareness of Climate Issues

Student committees were also supported by other climate action practices at the school. For example, in 2017-2018, the school put smaller trash cans in the classrooms to motivate students to produce less waste. The cafeteria also has different bins to allow waste to be sorted properly. The school's purchasing policy also promotes purchasing of sustainable products, including those that are fair trade and local.

Collège Durocher Saint-Lambert's designation as an EVB school helped drive climate actions at the school. The school's large size has sometimes made it difficult to integrate new practices. In particular, about 150 students are involved in committees focused on various topics of interest and these can sometimes compete with climate action projects. Overall, student-led committees have positively impacted the school and helped foster a culture of sustainability where it has become a reflex to say, "we are a green school."

A particularly promising practice at Collège Durocher Saint-Lambert was its connection of local water issues to climate action. Making global issues local is important when teaching students about complex issues such as climate change. In addition, at Collège Durocher Saint-Lambert, climate action learning has been largely directed by students, for students, through involvement in various committees. Each year the school receives 400 new students and the current student body participates in teaching new students about the school's culture of sustainability.

ÉCOLE SECONDAIRE LA POUDRIÈRE

Getting Serious about Waste Reduction

DRUMMONDVILLE, QC

SCHOOL FACILITATORS: ROBERT BOMBARDIER, GENEVIÈVE MIRON, AND DENISE GRENIER

At École Secondaire La Poudrière, climate action projects have been primarily driven by waste reduction. For example, the school has improved their recycling program by purchasing bins to help with sorting waste in their cafeteria, and the school is currently planning its composting program. The school board has also been supportive of climate action through numerous initiatives including installing timers on the school's hallway lights.

The school's main waste reduction project during the 2017-2018 school year was initiated by their UNESCO committee, which is made up of about 20 people and includes a 50/50 split of students and staff. The committee noticed many water bottles were being thrown away and decided to attack the problem at the source. Knowing the company in charge of their food service would not negotiate to stop selling water bottles, the school decided to buy reusable water bottles for all new students.

The decision to provide water bottles only to new students was mostly due to the availability of funding. As École Secondaire La Poudrière has about 1,100 students, the cost of providing water bottles for all students would be astronomical, and even raising enough money to buy water bottles for new students was a challenge. In the end, the project was made possible due to a generous \$1,000 grant from Carrefour Jeunesse Emploi, an organization that supports students in volunteering and entrepreneurship activities.

The water bottle project has also supported learning both inside and outside of the classroom, including as part of Earth Day 2018. For example, students picked up waste around their campus and neighboring woods, and the school inventoried the waste collected to create a targeted waste reduction plan. Also as part Earth Day, the school displayed how many water bottles are used in a week at the school to help students understand the extent of the plastic waste problem at their school. Finally, kiosks were set up to explain how to make eco-friendly cleaning materials and to highlight that the school's janitors already use eco-friendly soaps.

The reusable water bottle project was driven by the enthusiasm of the school's planning committee and the ease of implementation. The positive energy generated by the project was easy to maintain because the water bottle project was a concrete, feasible action where the results were seen quickly. The project was also made possible by the support of school management and the school's UNESCO school designation. In addition to the difficulty in locating sufficient funding for the water bottles, the project's largest barrier was a lack of willingness on the part of the food service company to stop selling single use water bottles. The project has been an empowering experience for the students on the committee who were major contributors in planning and implementing the project.

Before deciding to pursue the reusable water bottle project, École Secondaire La Poudrière used the *Getting Climate-Ready* guide as a starting point for thinking about climate actions in each of the four whole school domains. The most exemplary practice at École Secondaire La Poudrière was in taking steps towards encouraging systemic action in relation to the food service company's unwillingness to negotiate the cessation of plastic water bottles within school cafeterias. The school hopes to gain support from the school board to negotiate with their food service company to stop selling plastic water bottles and to become a climate action leader in addressing a common systemic issue.

COLLÈGE SAINTE-ANNE DE LACHINE

Carbon Neutral Day

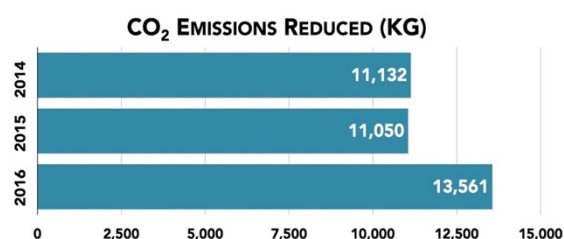
MONTRÉAL, QC

SCHOOL FACILITATORS: MARTIN CHEVALIER, SANDRA MAURIN, AND MANON HURTUBISE

On Carbon Neutral Day, students of Collège Sainte-Anne attend their lessons electronically and work in teams to complete their work. Carbon Neutral Day begins with an ecological footprint survey from which students learn how many planets would be needed if everyone consumed as much as them. Students also learn about actions to reduce GHG emissions and complete a video challenge to film themselves acting sustainably.

Collège Sainte-Anne has held Carbon Neutral Day for the past three years. Initially, the school held one Carbon Neutral day a year, but the event has been so successful it is now observed twice a year and has been incorporated into the school's sustainable development policy. Every year, the school's green committee, which consists of students and staff, makes a promotional video to create student excitement and introduce the event's challenge.

Carbon Neutral Day has resulted in significant reductions in GHG emissions produced by the school and the city. With 2,000 students and 200 staff members working remotely, decreased traffic on the roads during peak times has resulted in 11,132 kg of carbon dioxide emission reductions in 2014, 11,050 kg in 2015, and 13,561 kg in 2016. A school-wide video competition encourages students to further reduce their GHG emissions through activities such as turning down the heat in the winter and turning off lights when not in use.



Collège Sainte-Anne's climate action initiatives have been inspired partly by the City of Montréal's active attempts to meet Paris Agreement targets through investment in hydroelectricity. The school also collaborates with Le GRAME (Groupe de recherche appliquée en macroécologie, or Applied Research Group in Macroecology), a research group which focuses on sustainable development issues within the local Lachine community. Collège Sainte-Anne's Carbon Neutral Day inspired Collège Regina Assumpta to hold a similar Zero Emissions Day in the 2017-2018 school year.

Carbon Neutral Day initially because the school was looking for concrete actions to take in support of their ISO 14001 certification. The school eventually decided the cost of maintaining their ISO 14001 certification was not as meaningful as ensuring all of the school's decisions aligned with sustainable development principles. Now Collège Sainte-Anne maintains their motivation for climate action in part through their designation as UNESCO and EVB Schools. Carbon Neutral Day has required some learning on the part of the school. For example, the school had to adjust their network and web platform to support so many people accessing it simultaneously. Collège Sainte-Anne's facilitators also identified a need for teacher's guides that incorporate climate change into all subjects, and acknowledged that a stronger curricular focus across subjects on climate change would support broader inclusion within courses.

Collège Sainte-Anne is a leader in creatively engaging with technology to further climate change education, and Carbon Neutral Day is a unique and exciting promising practice that has emerged at this school. Ministry-level education policies and teacher's guides for to encourage cross-subject integration of climate change content are also a promising practice that is frequently an area for improvement in the Canadian education system. Overall, Carbon Neutral day is a climate action practice that has impacted the entire school community: teachers, students, and parents of Collège Sainte-Anne.

COLLÈGE REGINA ASSUMPTA

Zero Emissions Day

MONTRÉAL, QC

SCHOOL FACILITATORS: STÉPHANE FARLEY AND CELINE TWIGG

Imagine arriving at school to find all the parking lots, hallways, and classrooms empty. You may have to check your calendar to make sure it's not the weekend! This very thing happened at Collège Regina Assumpta as part of Zero Emissions Day when 2,200 students and 100 teachers worked from home instead of coming to school. Over 100 parents, school staff, and most of the Board of Directors also worked electronically for Zero Emissions Day.

The event's primary objective was to encourage the school community to reflect on their transportation methods, especially since transportation is responsible for 43% of GHG emissions in the city of Montréal. During Zero Emissions Day, students followed their regular school schedules at home, and teachers were available by email and online discussion forums. Some teachers also used Facebook Live to explain particularly difficult concepts.

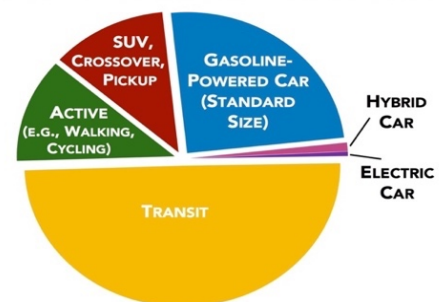
During breaks between classes, the school played radio broadcasts on relevant topics on an online site. For example, two vegetarian students were interviewed about the impact of meat consumption on GHG emissions. A teacher with an electric car was also interviewed. Collège Regina Assumpta held their Zero Emissions Day after being inspired by Collège Sainte-Anne, a collaboration made possible by CCUNESCO conferences.

As part of Zero Emissions Day, the school conducted a survey on transportation methods used by the school community. They found that teaching staff were often driving to school by themselves and 40% of students came to school by car. The school intends to use this information to encourage carpooling and public transit. The school was also considering including the environment in their strategic plan next year.

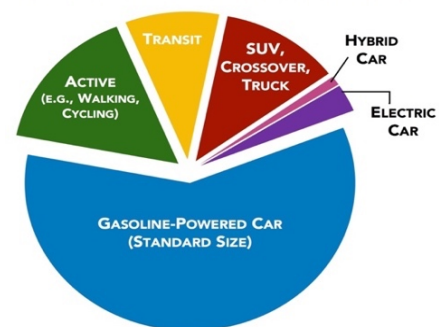
The event's success was largely due to its simplicity of implementation and student, teacher, staff, and management enthusiasm. Unique contributions from teachers and staff such as the radio broadcasts made the event more exciting. School management's existing interest in remote learning further bolstered the event's success. Relocating an entire school for a day did not come without a few challenges along the way. Major challenges were related to logistics, technical issues, and loss of income for the cafeteria. The school also held Zero Emissions Day on a Friday, which made it difficult to tell if students did their work on the actual day or over the weekend, next year it will be held on a Wednesday.

Zero Emissions Day illustrates how transportation choices directly translate into emissions reductions. The school plans to use the event to encourage reflection on more meaningful actions their school community could take. The *Getting Climate-Ready* guide links health and well-being which climate action practices. Other potential benefits from Zero Emissions Day include reduced stress from working at home and quieter work conditions. Overall, Zero Emissions Day illustrates the power of thinking differently about climate change education by engaging with technology in unique ways. Zero Emissions Day is also a beautiful example of how schools can collaborate together in the spirit of climate action!

STUDENT TRANSPORTATION METHODS



TEACHER TRANSPORTATION METHODS



Transportation Survey Results

HAFFORD CENTRAL SCHOOL

Reducing Waste and Planting Trees

HAFFORD, SK

SCHOOL FACILITATOR: LARISSA MATECHUK

At Hafford Central School, a partnership with the local waste management site has paired waste reduction with tree planting. Several classes have gone on field trips to the waste management site to see how the school's waste is sorted and managed and in May 2018, the school planted trees at the waste management site. The school has also partnered with the local biosphere reserve for projects as well as the University of Saskatchewan's School of Environment and Sustainability which conducts research related to the waste management site and the nearby Blaine lake.

At Hafford Central school, students learn about climate action mostly due to formal curriculum requirements in science, social studies, and English classes. As many students come from farm families, topics such as the benefits of using fewer chemicals and crop rotation instead of fertilizer are often covered. Courses at the school also include Indigenous perspectives in science and social studies. In 2017-2018, the school had a special focus on waste reduction in their classes. The school's UNESCO facilitator went to every class and sorted a day's worth of trash in front of students to provide them with a concrete example of proper waste management. Students were also taught that recycling means less resources are taken from the environment to make new materials, a lesson which was also linked to oil production and tree harvesting.



Planting Trees at the Local Waste Management Site

Getting students to sort their waste properly has been challenging at times because many students live in municipalities without waste management sites and often burn trash at home. Hafford Central School has bins in each classroom for waste, recycling paper, and recycling plastic, and signs in the school show what can be recycled. The school is considering composting after being inspired by other schools in their area.

Waste management at the school has been supported by students, who run the school's recycling program and take on leadership roles to spread the word about how to properly manage the school's waste.

The waste reduction and tree planting projects at Hafford Central School were successful because they did not require much organization, time, or money. Major barriers for broader uptake of climate action have been mostly related to a lack of motivation and support from the school community. The school's location in a rural town also limits their ability to partner with other organizations.

The waste-reduction project allowed students to see what actually happens to their garbage, making waste management more meaningful to students. Even in the face of significant challenges and barriers, Hafford Central School has persevered, taking as much action as possible. At the beginning of the 2017-2018 school year, the UNESCO school facilitator gave a PowerPoint presentation about the pilot project to support teachers to include topics into their courses. Hafford Central School indicated that the *Getting Climate-Ready* guide had good ideas about how to incorporate climate change across subjects, but suggested ready-made resources for teachers would be helpful for bolstering climate action efforts.

PROMISING PRACTICES

The ten pilot school stories allowed the identification of many promising practices, as well as common drivers and barriers to climate action.

1. Collaborating Through the CCUNESCO ASPnet Schools Network

Throughout the evaluation, it was apparent how much CCUNESCO ASPnet schools learn from each other, especially during the semi-annual CCUNESCO ASPnet conferences. For example, two schools used climate change challenges, two schools had Carbon Neutral Days, and two schools were involved in the Carbon Scol'ÈRE program.

2. Engaging Diverse Climate Action Actors

These networked connections were further supported by the collaborative school spirit of schools and interpersonal relations that were often spearheaded by sustainability champions. Within CCUNESCO ASPnet schools, climate actions were led by diverse members of the school community, such as students of all ages, teachers, and management.

3. Making Climate Change Local and Relevant

Several schools connected to local climate change issues by mentioning issues such as water quality. Climate change can seem like a far-away issue of little relevance to students' daily lives. Finding local meaning can make climate change a more engaging topic for students.

4. Creatively Using Technology

Multiple CCUNESCO ASPnet schools utilized technology in new and exciting ways. Whether it was by communicating about whole school climate action approaches through websites or by using technology to remotely 'go to school,' CCUNESCO ASPnet schools creatively engaged with technology when learning about climate action.

5. Providing Concrete, Feasible Climate Actions

The complex issues associated with climate change can be overwhelming for students. Many CCUNESCO ASPnet schools tackled these challenges by actively engaging in climate action projects and supporting students to take concrete actions.

DRIVERS & BARRIERS

When common drivers and barriers of climate action are known, schools can develop strategies to overcome these potential roadblocks to their climate action initiatives. The most common challenges identified in the evaluation were time and money.



The evaluation also provided insight into factors that help create successful climate action initiatives. Schools reported that supportive students, teachers, staff, and administrators were the largest drivers of climate action. Community partnerships and UNESCO and green school designations were also helpful.

NEXT STEPS

The promising practices identified in the evaluation represent positive first steps towards ‘good practices’ in climate change education. In the future, UNESCO whole school climate change education initiatives could also:

1. Connect to Indigenous Knowledge

CCUNESCO ASPnet schools sometimes incorporated Indigenous knowledge within their classes but rarely linked them to climate action. Future climate action projects could be strengthened by incorporating Indigenous knowledge, which is deeply embedded in caring for the land for future generations. Indigenous knowledge often includes crucial locally-relevant mitigation and adaptation strategies which can bolster community resilience in the face of climate change. Meaningful engagement with local Indigenous communities can also make climate change education more relevant to students through connections to local place.

2. Expand Beyond Individual-Focused Solutions

Several climate action projects within CCUNESCO ASPnet schools fell within the facilities and operations domain. In addition, several schools’ climate action projects focused on encouraging entrepreneurship and market-based solutions to climate change. These approaches rely on individuals changing their own behaviors. In the future, students could be encouraged to utilize critical thinking skills to determine the source of systemic problems contributing to climate change. Schools could also adopt climate action approaches to help address feelings of powerlessness associated with climate change and implement initiatives aimed at the broader systemic social structures that support climate inaction. For example, students could engage with representatives in municipal, provincial, and federal government to advocate for broader governmental and policy change.

3. Create a Teacher’s Guide for Incorporating Climate Change into All Curriculum Subject Areas

Several schools expressed interest in incorporating climate change into all subjects but highlighted the difficulty in doing this due to a lack of ready-made resources for teachers to pick up and directly use within their classes. While the *Getting Climate-Ready* guide was helpful for conceptualizing how curriculum integration might be done, the amount of work required by teachers to create these materials themselves resulted in significant barriers to cross-subject integration. Programs such as Carbon Scol’ÈRE saw higher uptake due to their provision of classroom-ready materials for teachers.

4. Develop an Easily Accessible Online Platform where Schools Can Readily Share Ideas, Problems, and Resources

The evaluation highlighted that CCUNESCO ASPnet schools learn a great deal from each other and it was apparent that more and ongoing idea exchanges could be beneficial. For example, several schools lamented that their school’s cafeteria food service company would not negotiate to stop selling water bottles. Many other schools mentioned that waste management companies would not pick up their school’s compost. The schools in the evaluation were all experiencing similar problems, and could come together to collectively apply pressure on these companies. To that end, a more user-friendly online platform could support further networking amongst UNESCO ASPnet schools. It is the evaluators’ understanding that the ASPnet Online Tool developed by UNESCO was designed to support collaboration in this manner. However, we received feedback that the user-friendliness of the platform could be improved. Collaboration via technologies such as social media could also be explored, particularly as several of the ASPnet schools in the evaluation were already creatively using technology for their climate action efforts.

The 10 CCUNESCO ASPnet “Getting Climate-Ready” pilot schools have made significant steps to help mitigate climate change. The many exciting climate action initiatives taking place in the schools provide an inspiring reminder of the power and promise of collective action the fight against climate change.



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GETTING CLIMATE-READY PROMISING PRACTICES