



BRITISH COLUMBIA

**Sustainable Energy**  
ASSOCIATION

Final Report

April 2020



# COOL IT!

CLIMATE LEADERSHIP TRAINING

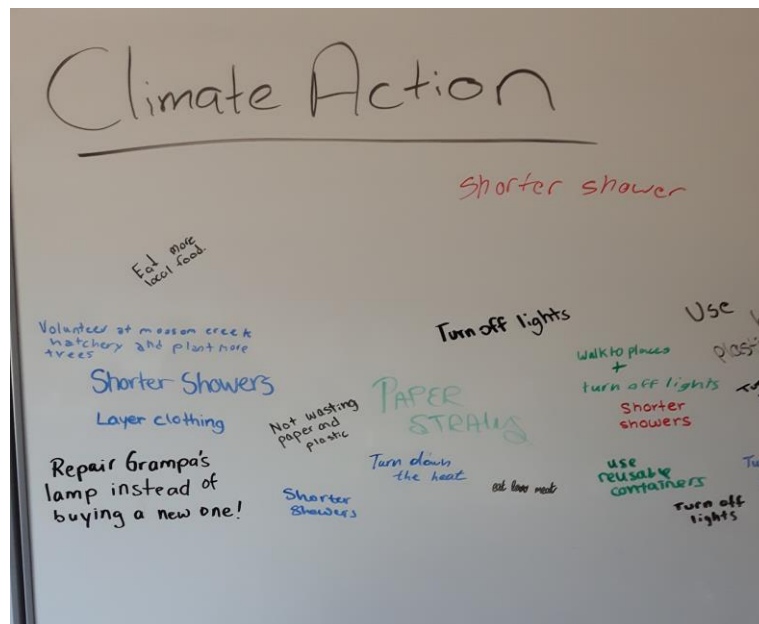
City of Port Moody | Spring 2020



## Executive Summary

In 2020 the City of Port Moody generously committed \$3,800 in workshop sponsorship for BC Sustainable Energy Association's (BCSEA) Cool It! Climate Leadership Training program to reach schools in the City. With this generous sponsorship, BC Sustainable Energy Association's *Cool It! Climate Leadership Training* program reached 151 students through six workshops at three schools in Port Moody.

During the program challenge, students committed to several energy saving actions over a 4-week period. Students' energy conserving and emissions saving actions at home resulted in the projected annual savings of a total of 141.917 tonnes of carbon dioxide emissions (CO<sub>2</sub>e), if they continue their actions for one year. This was the result of students and their families taking action in every area in their life, from their food choices, to their transport, home heating behaviours, and consumption and waste. We are delighted with the students' efforts during the program, some classes were more active on the challenge than others but students that did not actively participate in the challenge committed to take action either verbally or in the form of a written pledge (see image below). When we did the follow up sessions with each class we found that the students were excited to share their successes and challenges and were committed to taking more action/making changes to reduce their carbon footprints in their schools and communities.



The City of Port Moody's commitment of \$3,800 enabled the BC Sustainable Energy Association (BCSEA) to deliver the Cool It! workshops and connect teachers to high quality educational resources to explore climate change actions further. This sponsorship support enabled students and their families to reduce their emissions at a cost of \$26.78

per tonne. The City of Port Moody's generous funding support was recognized by BCSEA through logo placement online, in print materials, in school workshops, and on social media.

## The Cool It! Climate Leadership Training Program

### Program Overview

BCSEA's Cool It! program brings Environmental Educators into classrooms to deliver a fun-filled, thought provoking and empowering program that engages students on climate change and energy conservation. Prior to workshop delivery, teachers are provided with educational materials and some preparatory exercises to do with students. During the workshops, grades 4 to 7 students and their teachers are engaged with discussions and activities. After discussing their understanding, concerns and current actions on climate change and brainstorming ways to reduce their own impact, the students work at home on the Climate Leadership Challenge contest and work at home with their families to reduce their household greenhouse gas emissions (GHGs). The contest is a 4-week student-family challenge that supports students taking steps to set realistic achievable goals, reflect on the outcomes, and share successes and challenges.

In addition, a rich set of teacher resources supports classes in exploring key themes in energy conservation and climate change mitigation, including the power of optimism. BCSEA's regularly refreshed Cool It! program is designed to encourage student actions and attitudes that support municipal, provincial, and federal emissions reduction targets. It helps empower students and teachers to explore energy conservation and climate change mitigation beyond the workshop, with inquiry and place-based activities linked to local and regional resources and solutions.

After the 4-week Challenge, BCSEA's Environmental Educators return to each classroom to conduct a follow-up visit and distribute challenge results. The follow-up visit involves a short presentation that provides further ideas on how to take and sustain action against climate change, and a discussion on how the challenge went and how students can continue with their efforts. Overall, it provides hope for the future! During the sessions, classes and teachers are rewarded for their efforts.

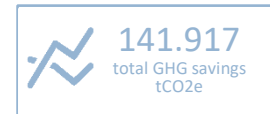
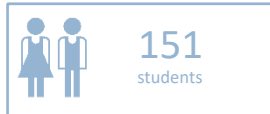
BCSEA's refreshed program not only supports emissions reductions, it builds teachers' capacity to engage students on these topics and empowers students to go further themselves. By modelling inquiry and place-based thinking in pre-workshop and workshop activities, BCSEA's Environmental Educators enhance the teachers' approach to seeing climate change solutions in a participatory, open-ended, and generative manner.

## The City of Port Moody-funded Workshops

### Program Results

The funding amount of \$3,800 committed by the City of Port Moody enabled BCSEA to deliver six Cool It! workshops to 151 grade 3 to 8 students in Port Moody during the Winter of 2020 term (see table below). The 4-week Challenge involved the students performing actions at home, resulting in an estimated total reduction of 141.917 tonnes of greenhouse gas emissions (tCO<sub>2</sub>e). This is equivalent to the emissions from more than 30.7 passenger vehicles being taken off the road for a year.

### The City of Port Moody-sponsored workshop summary:



### The City of Port Moody-sponsored workshop details:

School	Teacher	Grade	Class Size	Contests	Return Rate (%)	tCO <sub>2</sub> e GHG/yr
Mountain Meadows Elementary	Randi Hethey	3-4	23	11	48%	10.567
Moody Middle School	Ron Lee	8	28	21	75%	20.211
Moody Middle School	Ron Lee	6-7	25	19	76%	22.807
Moody Middle School	Carole Pacquette	6-7	24	16	67%	23.364
Moody Middle School	Rebekah Grayston	7-8	24	0	0%	0
Heritage Mountain Elementary	Gary Leuvekamp	4-5	27	27	100%	64.968
		Totals	151	94	61%	141.917

A summary of the actions that students took on during the 4-week challenge:



## Transport Choices

Cycle/walk/transit instead of drive  
Pump up your tires



## Food Choices

Eat local food  
Reuse food scraps  
Eat less meat  
Grow your own vegetables



## Reduce Waste

Refuse, Reduce, Reuse, Repair, Recycle  
Have litter free lunches and use reusable bags



## Home Heating

Turn down the heat, put on more clothes  
Shut the curtains to keep heat in  
Turn off the heat in unused rooms  
Draft-proof or insulate windows and doors  
Install a programmable thermostat  
Find rebates and make your house more efficient



## Water Wise

Take shorter showers  
Turn off the tap when brushing  
Heat the right amount of water  
Do dishes more efficiently  
Install a low flow showerhead  
Insulate hot water heater and pipes  
Wash laundry in cold water  
Hang dry laundry

# CLIMATE CHALLENGE

Remember to log your actions each week on the BC Sustainable Energy Association's climate challenge to reduce your carbon footprint, save on bills, and win prizes!

[www.climatecool.org](http://www.climatecool.org)



## Lighting and Appliances

Turn off the tv and games at the wall  
Install a powerbar or outlet timer  
Turn off lights when not in use  
Replace bulbs with LEDs  
Have an Earth Hour



## Toxic

Use recycled toilet paper and towel  
Buy/make biodegradable cleaning and beauty products  
Plant trees!  
Collect litter  
Audit a garbage system  
Green your yard: DIY compost, use non-mechanical equipment, water less, plant low maintenance gardens



## Community Actions

Write a letter to council  
Organise or participate in an event  
Organise a toy, tool, clothes swap  
Audit and improve waste systems  
Organise picnic, meat-free day, or Earth Hour



## "Over to You"

### A Few Energy-Saving and Eco-friendly Ideas from 2019/20 Cool It! Students

- hand wash laundry
- less traffic lights equals using less gas (consider roundabouts when designing cities/communities)
- recycle, compost and buy second hand
- reduce plastic straws
- don't use chemical sprays and take part in a food drive
- plant trees in your yard, don't buy things you don't need, reduce plane travel, clean up litter and use less paper
- eat "veggie meats"
- donate clothing to value village
- go green when staying at a hotel (don't get towels washed)
- boycott products that have a big impact on the enviro, get an electric car and organize a clothing swap
- use reusable produce bags
- close lights when we can
- take shorter showers, eat less food w plastic packaging and eat less processed food, reusing bottles
- always take the skytrain to school
- turn off the water when brushing teeth
- wear 100% cotton, turn off the taps when brushing teeth, turn off electronic devices/lights when leaving the room
- take reusable bags to the store, collect cans so they don't end up in the trash, stop letting water run
- use your own bags at the grocery store, bring your own cup to cafes and your own container and cutlery.
- reduce how many paper towels are used to dry hands in the washroom

### Student and Teacher Recognition and Rewards

BCSEA rewarded the hard work and dedication of students and teachers who did their best to complete the 4-week contest. The winning class was determined by the highest total percentage of contest points possible based on the class size, and the winning class was Gary Leuekamp's grade 4-5 class at Heritage Mountain Elementary. Through their participation in the contest, Gary's class are projected to reduce an estimated 64.968 tonnes of greenhouse

gas emissions<sup>1</sup>. The class was awarded with a seed planting party, a mushroom growing kit and a class certificate to celebrate their hard work.

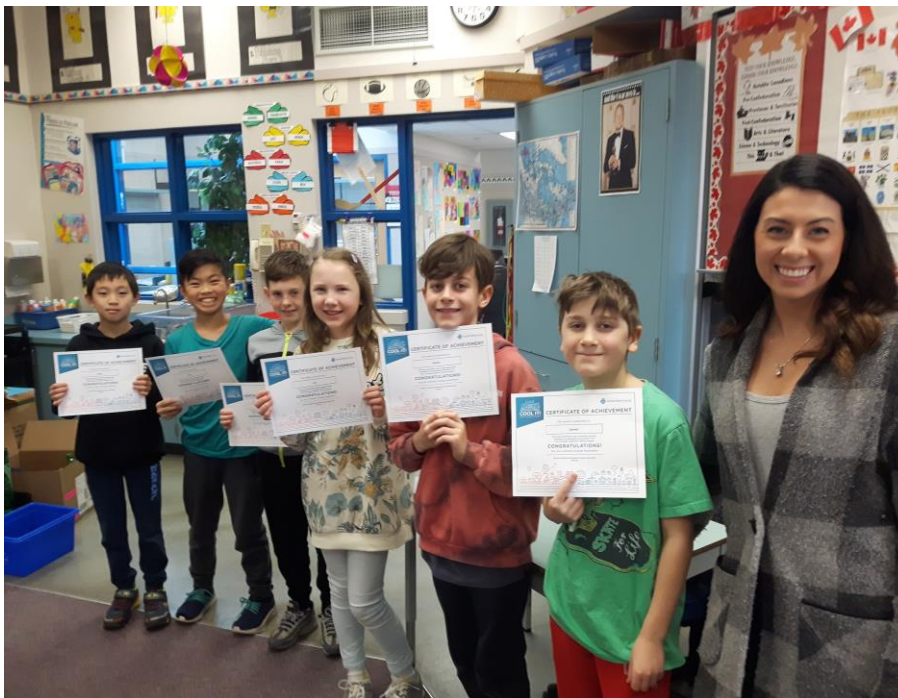
Top achieving students were awarded high achievement certificates. The students who scored the highest points overall of all participating classes was rewarded with a book, as was the student who reduced their greenhouse gases the most.



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<sup>1</sup> The emissions saved are based upon the assumption that students continue their 4-week challenge activities through a full year upon completing the contest.





*Seed planting and happy student photos from Gary Leuvekamp's class celebration*

## Acknowledgement of The City of Port Moody's Sponsorship and Support

BCSEA is grateful for the funding support from funders like The City of Port Moody who have made climate change education programming possible in their community. The City of Port Moody was acknowledged for their support of the Cool It! program as follows:

- The City of Port Moody's logo was placed on the Climate Leadership Challenge form taken home by students
- The City of Port Moody's logo is featured on the sponsor section of the Cool It! webpage <http://www.bcsea.org/cool-it>
- Presenters acknowledged the support of The City of Port Moody during workshops and also during the follow up sessions
- Emails to teachers and schools in the region acknowledging The City of Port Moody's support

The BCSEA would like to thank the City of Port Moody for its partnership in achieving the shared goals of increasing awareness of climate change and energy conservation, and for making real behaviour change possible for BC students and their families to conserve and reduce their climate impacts. It was a wonderful opportunity for us to offer the program again in Port Moody, where we love the enthusiasm of the students and teachers!



## Contest Points and Quantifying Emissions Savings

### Emissions Savings

The Cool It! Climate Leadership Challenge, the contest portion of the program, estimates individual's CO<sub>2</sub>e savings from contest actions using a specially developed online carbon footprint calculator and carbon calculator tool. It compares their current carbon footprint as a benchmark, and calculates their carbon footprint savings throughout the course of the challenge. For each action taken it is assumed that a given savings includes that activity over the period of the contest and continues for at least a full calendar year. Energy savings are measured in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). These savings are calculated using emissions factors for electricity produced in BC (BC Hydro) and standard emissions factors for natural gas and gasoline. Calculations for usage over a year use standard averages (e.g. lightbulbs average daily usage over a year = 3 hours per day). On the website participants can compare against the BC average, as well as their classmates.

### Contest Points

The contest uses points for student actions as a simple relative emissions value. Points are weighted, based on the GHG impact of the action, difficulty, and associated costs (if any – there are some “free and easy” actions, some that save money such as taking shorter showers, and some that cost money such as replacing bulbs with LEDs). The intent of a points system along with measuring CO<sub>2</sub> emissions reductions is to raise awareness and inspire student and family commitment to take action. This recognizes the efforts of younger, less able and/or lower socioeconomic households to receive acknowledgement for taking steps – while also rewarding those who are clearly making great strides.

### Program News

We have exciting news: We have recently digitised our climate challenge so that it is available in an online format so that it is more engaging for students. We hope that this will help to keep our curriculum modern and exciting, and engaging for students of all ages. The digitised version will be piloted in select classes throughout 2020, with rollout to all program classes from 2021. This is the challenge that we used for some of the classes in the City of Port Moody challenge.

We are also developing and piloting a climate education program for high school aged students. This will be ready for provincial roll-out in 2021 after development, piloting and evaluation in 2020.

Further, we refreshed the program with more interactive games and activities during workshops, and shifting the core videos and video worksheets to pre-workshop activities.

Further, the program is regularly refreshed to:

- Meet changing curriculum requirements for BC teachers
- Update climate change references and data to reflect current values
- Renew and improve the format and actions of the 4-week student contest forms
- Further enrich the teacher resources available to support ongoing learning and inquiry parallel to students doing the contest
- Improve student action data gathering and reporting for program funders

We continue to refine these changes and welcome your input and feedback as we continue the program. We continue to strive to improve contest form return rates through follow-up sessions with classes, teacher outreach, teacher support, and various incentives.