



KEEP COOL IN PETERBOROUGH

FINAL REPORT 2018-19

▶ OVERVIEW

The **Planet Protector Academy: Keep Cool** is an innovative behaviour change program that inspires kids to become climate action superheroes, helping them understand core issues through fun classroom activities before sending them home on superhero missions to change families' energy, water and transportation habits.



▶ THE RESULTS

Engaged **234** kids in **906** participant hours of inspiring environmental education!

Reached an estimated **468** family members

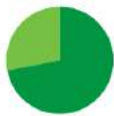
Saved over **48,000kg** CO₂e!



Mission: Turning Off Lights More
of Families Reporting: **180**
% Reporting Behaviour Change: **61%**



Mission: Taking Shorter Showers
of Families Reporting: **196**
% Reporting Behaviour Change: **62%**



Mission: Idling Less
of Families Reporting: **116**
% Reporting Behaviour Change: **71%**



Mission: Driving Less
of Families Reporting: **49**
% Reporting Behaviour Change: **63%**

▶ FEEDBACK

Teacher survey results:

- 100% had a lot of fun using the program!
- 100% said it's effective at inspiring behaviour change
- 100% said they'd recommend the program to other teachers



86% of kids had fun doing this program!

“Many parents have told me that they have had to make changes such as not idling as their children have been so insistent.” – Amy Merrill, Grade 1/2 Teacher

▶ RECOMMENDED NEXT STEPS

Based on this year's results, we would recommend delivering the program in up to 12 classrooms in the 2019-20 school year, with a specific focus on closer collaboration with school districts and improving uptake in County schools. We look forward to working with you to make this happen!



▶ APPENDIX 1: FULL BEHAVIOUR CHANGE RESULTS



MISSION 1: Operation Darkroom (easy, to get parents' buy-in) [180 reporting]

- Kids turning off lights more now: 71%
- Families turning off lights more now: 61%
- Kids pledging to turn off lights from now on: 86%



MISSION 2: Operation Shower Power (taking shorter showers) [196 reporting]

- Kids having shorter showers now: 78%
- Families having shorter showers now: 62%
- Kids pledging to have shorter showers from now on: 94%



MISSION 3: Operation Keep Car Cool

(reducing idling & speeding; proper vehicle maintenance) [116 reporting]

- Families idling less now: 71%
- Families speeding less now: 56%
- Families pledging to maintain their cars better: 63%
- Kids pledging to be Green Drivers when they grow up: 89%



MISSION 4: Operation Go Car Free (active transportation) [49 reporting]

- Families driving less now: 63%
- Families walking more now: 65%
- Families cycling more now: 65%
- Families taking transit more now: 18%
- Families carpooling/ridesharing more now: 43%



OVERALL PROGRAM

- Kids having fun doing this program: 86%
- Kids feel like real-life Planet Protectors now: 72%
- Kids pledging to be Planet Protectors from now on: 89%
- Families that succeeded with at least 1 mission: 88%



▶ APPENDIX 2: TEACHER SATISFACTION RESULTS

3 teachers in Peterborough responded to our teacher satisfaction survey:

Experience in the classroom

- 3/3 had a lot of fun doing the program in their class!
- 2/3 agreed that the website was easy to use

Impact on students

- 3/3 agreed that the Academy is effective at inspiring children to change their environmental behaviours
- 2/3 said the PPA had a higher impact than other environmental education programs offered to their school
- 3/3 said the resource developed students' understanding of how human actions modify the physical environment
- 3/3 said the resource developed students' motivation and personal responsibility for protecting the planet

Supporting teachers to bring sustainability and new tools/approaches into classroom

- 3/3 agreed that the resource increased their confidence to teach sustainability topics
- 3/3 agreed that the resource increased their excitement to teach sustainability topics
- 3/3 agreed that the resource helped increase their own personal literacy around sustainability topics
- 3/3 agreed that the resource helped them bring technology into the classroom
- 3/3 agreed that the resource helped them reach diverse learners
- 2/3 agreed that the resource helped them increase their range of teaching tools and approaches

Overall rating

- 3/3 would recommend the PPA to other teachers
- 2/3 said they'd use the resource again next year

Excerpts from surveys

"It's ready and easy to use. Increases student engagement and it's easy to implement. Many parents have told me that they have had to make changes such as not idling as their children have been so insistent."

– Amy Merrill, Grade 1/2 Teacher

Note: please ask permission from teachers before quoting them



▶ APPENDIX 3: ESTIMATED GHG SAVING

Saving Energy

Number of families who reported both energy saving missions **180**

Short-term savings

Baseline consumption in first 3 months (kWh)	405,000
x % of families who reported saving energy	61%
x % energy reduction (assumed)	5%
= Energy savings in first 3 months (kWh)	12,353
CO2e savings in first 3 months (kg)	10,574

Potential long-term savings (assuming 25% maintain)

Baseline consumption in subsequent 33 months (kWh)	4,455,000
x % of families who initially reported saving energy	61%
x % initial energy reduction (assumed)	5%
x % of families who maintain reduction for subsequent 33 months	25%
=Energy savings in subsequent 33 months (kWh)	33,969
CO2e savings in subsequent 33 months (kg)	29,078

Driving Less

Number of families who reported the mission **49**

Short-term savings

Baseline kilometers driven in first 3 months	287,681
x % of families who reported driving less	63%
x % reduction fuel usage (assumed)	5%
Kilometres driven savings in first 3 months	9,061.97
CO2e savings in first 3 months (kg)	2,265

Potential long-term savings (assuming 25% maintain)

Baseline kilometres driven in subsequent 33 months	3,164,496
x % of families who initially reported driving less	63%
x % initial reduction fuel usage (assumed)	5%
x % of families who maintain reduction for subsequent 33 months	25%
Kilometres driven savings in subsequent 33 months	24,920
CO2e savings in subsequent 33 months (kg)	6,230

Assumptions

- Typical residential consumption: 750kWh (Ontario Energy Board, April 2016)
- CO2e conversion factor 0.856kg CO2e / kWh (NRCAN, 2013)

Assumptions

- # of vehicles per household: 1.45 (Ontario average from NRCAN 2009 Canadian Vehicle Survey)
- Number of kilometers per vehicle per year: 16,196km (Ontario average from NRCAN 2009 Canadian Vehicle Survey)
- CO2e conversion factor: 250g CO2e/km (Average of 2017 NRCAN Fuel Consumption Ratings)

Total greenhouse gas savings over 3 years = 48,147kg CO2e



▶ APPENDIX 4: SAMPLE PRESS RELEASE

Young Green Superheroes Lead the Way in Peterborough

Peterborough, July 4, 2019

Almost 235 elementary school children in Peterborough are celebrating their green achievements this summer as new graduates of the Planet Protector Academy. Not only have they taken steps themselves to protect the planet, they've encouraged their siblings and parents to get involved too!

The Academy, developed by youth engagement charity DreamRider Productions, was supported through a partnership with the City and County of Peterborough and delivered in local schools over the last few months. The aim was to raise awareness about climate change and engage students and families in taking practical action to reduce their impact on the planet.

Supported by an interactive website that's projected at the front of the classroom, teachers lead fun arts-based activities to explore climate change, energy & transportation issues. As 'apprentice' Planet Protectors, they then use the knowledge and skills they learn in class to go home on superhero missions to lead change in their families' habits. By putting kids at the center of the storyline, the Academy becomes a game, but also real life, as they compete in teams to make the biggest impact!

"It's ready and easy to use. Increases student engagement and it's easy to implement. Many parents have told me that they have had to make changes such as not idling as their children have been so insistent."

- Amy Merrill, Grade 1/2 Teacher

The students certainly made an impact, with 63% of parents ditching the car for a more sustainable alternative and 62% saving energy in the home!

-30-

Background

The Planet Protector Academy is a suite of digital-led educational program that aims to inspire and empower kids to lead change in their families' environmental habits. It was developed by youth engagement charity DreamRider Productions, who partner with government agencies and school districts across North America to inspire a generation of environmental superheroes leading action on climate change, waste and water conservation.

Contacts

Melanie Kawalec, Sustainability Manager, City of Peterborough

500 George Street N, Peterborough, Ontario K9H 3R9 | mkawalec@peterborough.ca / 705-742-7777

Sion Lanini, Opportunities and Operations Alchemist, DreamRider Productions

215-202 Westhill Place, Port Moody, BC, V3H 1V2 | sion@dreamriderproductions.com / 604-757-3212



▶ APPENDIX 5: PARTICIPATING TEACHERS

Name	User School	Location	Status
Cheryl Bond-Dorris	St. Patrick Elementary	City	Used
Cindy Shannon	St. Anne Catholic Elementary	City	Used
Genevieve O'Grady	St. Catherine Elementary	City	Used
Logan Williamson	Queen Mary Public School	City	Used
Michael DeMaeyer	St. John Elementary	City	Used
Michelle Towns	Monsignor O'Donoghue Catholic	City	Used
Shannon Donnelly	St. John Catholic Elementary	City	Used
Suzanne Champaigne	Queen Mary Public School	City	Used
Todd Richard	St. Catherine Elementary	City	Used
Amy Merrill	Norwood District Public School	County	Used
Margaret Adkins	Chemong Public School	County	Used

* Note we had a total of 38 teachers from Peterborough register interest for the program.



▶ APPENDIX 6: STUDENT LETTERS

Dear Planet Protectors,

Our class really enjoyed your program! We all hope you have a great summer! Every time our class would do Planet Protectors our class would have so much fun! your program is so interactive it even had its own game show! Planet Protectors showed us how to work in a team and all work together! We hope our class can keep doing this Program. We also liked your program Planet Protectors because it would teach us things we didn't know. We hope that years from now kids can do this program and learn to help our planet. Thank you for all you do for our planet and helping it thrive and grow. In your program it makes kids more aware of what is happening but also how to fix it.

Thank you for everything!

Have a great summer!

From, Mr.Ds grade 5/6 class

Hello,

We wanted to let you know that we loved the program, is was so kid friendly, and we love the IDEA of the PROGRAM. All the Siper hearos were really cool,. the idea of the program was awesome.

From the Grade 5 and 6 Girls and boys from St. John



ZERO HEROES IN PETERBOROUGH

FINAL REPORT 2018-19

▶ OVERVIEW

The **Planet Protector Academy: Zero Heroes** is an innovative behaviour change program that inspires kids to become zero waste superheroes, helping them understand core issues through fun classroom activities before sending them home on superhero missions to change their families' waste and consumption habits.



▶ THE RESULTS

Engaged **218** kids in **1,117** participant hours of inspiring environmental education!



Mission: Reducing Food Waste
of Families Reporting: 186
% Reporting Behaviour Change: 65%



Mission: Making a Waste-Free Lunch
of Families Reporting: 162
% Reporting Behaviour Change: 72%

Reached an estimated **436** family members.



Mission: Buying Smarter
Family Conversations: 100

▶ FEEDBACK

Teacher survey results showed:

- 100% said it was easy to use
- 100% said it's effective at inspiring behaviour change
- 100% said they would use it next



85% of kids had fun doing this program!

"A super easy to use - open and play! - fun and engaging, ready-made resource to teach students about the environment and being responsible citizens."

- Rachel Adamson, Grade 3/4 Teacher

▶ RECOMMENDED NEXT STEPS

Based on this year's results and general interest in waste reduction among schools, we would recommend delivering the program in up to 14 classrooms in the 2019-20 school year, with a specific focus on closer collaboration with school districts. We look forward to working with you to make this happen!



▶ APPENDIX 1: FULL BEHAVIOUR CHANGE RESULTS



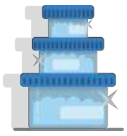
MISSION: Operation Garbage Watch (raising awareness of issues) [214 reporting]

- Kids discussing with their families about how they can make less garbage: 62%
- Kids looking for clues for how their families could make less garbage: 52%



MISSION: Operation Love Food Hate Waste (reducing food waste) [186 reporting]

- Kids who put an 'Eat Me First' sign in their fridge: 56%
- Kids reminding their families to eat from the Eat Me First box: 66%
- Families now wasting less food: 65%
- Kids pledging to waste less food: 88%



MISSION: Operation Waste-Free Lunch [162 reporting]

- Kids participating in classroom Waste-Free Lunch: 70%
- Number of other classrooms also participating: 10 classrooms
- Kids lunches that are now making less garbage than before: 72%
- Kids pledging to keep finding ways to reduce the garbage their lunch makes: 82%



MISSION: Operation Buy Smart (sustainable consumption) [123 reporting]

- Numbers of conversations kids had with their families about buying smarter: 100
- Kids pledging to Buy Smart when they grow up: 88%



OVERALL PROGRAM [123 reporting]

- Kids having fun doing this program: 85%
- Kids feel like real life Planet Protectors now: 64%
- Kids pledging to be Planet Protectors from now on: 76%
- Families that succeeded in at least one mission: 80%



▶ APPENDIX 2: TEACHER SATISFACTION RESULTS

6 teachers in Peterborough responded to our teacher satisfaction survey:

Experience in the classroom

- 100% had a lot of fun doing the program in their class!
- 100% agreed that the website was easy to use

Impact on students

- 100% agreed that the Academy is effective at inspiring children to change their environmental behaviours
- 84% said the PPA had a higher impact than other environmental education programs offered to their school
- 100% said the resource developed students' motivation and personal responsibility for protecting the planet
- 50% said the resource developed students' understanding of how human actions modify the physical environment

Supporting teachers to bring sustainability and new tools/approaches into classroom

- 100% agreed that the resource increased their confidence to teach sustainability topics
- 83% agreed that the resource increased their excitement to teach sustainability topics
- 100% agreed that the resource helped increase their own personal literacy around sustainability topics
- 67% agreed that the resource helped them bring technology into the classroom
- 83% agreed that the resource helped them reach diverse learners
- 100% agreed that the resource helped them increase their range of teaching tools and approaches

Overall rating

- 100% would recommend the PPA to other teachers
- 100% said they'd use the resource again next year

Excerpts from surveys

"A super easy to use - open and play! - fun and engaging, ready-made resource to teach students about the environment and being responsible citizens. Inspire great conversations with students. It has been fantastic hearing students talking about efforts they are making in their lives and sharing their knowledge with their families!"

- Rachel Adamson, Grade 3/4 Teacher

"It's an interactive resource that promotes making correct environmental choices in a fun way. Thanks again for another great product. We can't wait to do it again next year."

- David Buckley, Grade 3 Teacher

"A well designed, easy to use resource that engages students to think critically about how their actions impact the environment around them. The resource is relatable, engaging, and fun for students in grades 4-5, and gives them good vocabulary to communicate about how to better protect our environment."

- Laura Buehler, Grade 4/5 Teacher

Note: please ask permission from teachers before quoting them



▶ APPENDIX 3: SAMPLE PRESS RELEASE

Young Green Superheroes Lead the Way in Peterborough

Peterborough, July 16, 2019

Almost 220 elementary school children in Peterborough are celebrating their green achievements this summer as new graduates of the Planet Protector Academy. Not only have they taken steps themselves to protect the planet, they've encouraged their siblings and parents to get involved too!

The Academy, developed by youth engagement charity DreamRider Productions, was supported through a partnership with the City and County of Peterborough and delivered in local schools over the last few months. The aim was to raise awareness about natural resource use, and engage students and families in taking practical action to reduce their impact on the planet.

Supported by an interactive website that's projected at the front of the classroom, teachers lead fun arts-based activities to help students explore waste and consumption issues. As 'apprentice' Planet Protectors, they then use the knowledge and skills they learn in class to go home on superhero missions to lead change in their families' habits. By putting kids at the center of the storyline, the Academy becomes a game, but also real life, as they compete in teams to make the biggest impact!

"A super easy to use - open and play! - fun and engaging, ready-made resource to teach students about the environment and being responsible citizens."

- Rachel Adamson, Grade 3/4 Teacher

The students certainly made an impact, with 65% of families reducing food waste, 53% of families recycling more of their food scraps and 72% of students making less garbage with the lunches they bring to school!

-30-

Background

The Planet Protector Academy is a suite of digital-led educational program that aims to inspire and empower kids to lead change in their families' environmental habits. It was developed by youth engagement charity DreamRider Productions, who partner with government agencies and school districts across North America to inspire a generation of environmental superheroes leading action on climate change, waste and water conservation.

Contacts

Virginia Swinson, Waste Diversion Section Manager, City of Peterborough
500 George Street N, Peterborough, Ontario K9H 3R9 | vswinson@peterborough.ca / 705-742-7777

Sion Lanini, Opportunities and Operations Alchemist, DreamRider Productions
215-202 Westhill Place, Port Moody, BC, V3H 1V2 | sion@dreamriderproductions.com / 604-757-3212



▶ APPENDIX 4: PARTICIPATING TEACHERS

Name	School	Location	Status
Amanda O'Reilly	St. Anne Catholic Elementary	City	Used
David Buckley	St. Patrick Elementary	City	Used
Kelly Clement	Monsignor O'Donoghue Catholic	City	Used
Laura Buehler (class 1)	St. Anne Catholic Elementary	City	Used
Laura Buehler (class 2)	St. Anne Catholic Elementary	City	Used
Mary Adams	James Strath Public School	City	Used
Rebecca Beavis	St. Catherine School	City	Used
Sarah Trudell	Edmison Heights Public School	City	Used
Jenny Pink	Havelock Public School	County	Used
Rachel Adamson	Lakefield District Public School	County	Used

** Note we had a total of 21 teachers from Peterborough register interest for the program.*

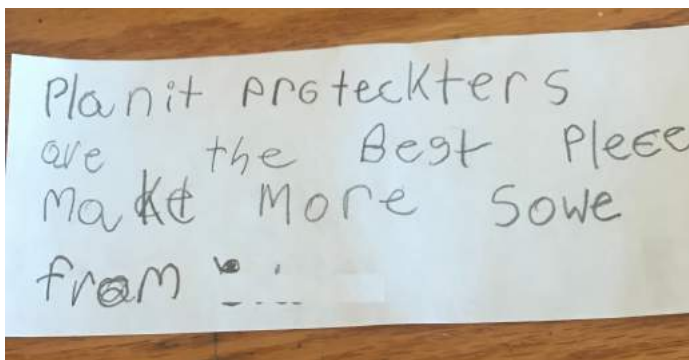


▶ APPENDIX 5: ART & LETTERS FROM STUDENTS



Poster project to remind the class to reduce waste (Grade 3).

Planet Protector Academy team posters (Grade 3).



"[Planet Protectors are the best, please make more.]"
Letters to the Planet Protector Academy (Grade 3).