



PLANET PROTECTOR  
ACADEMY

Training superheroes of environmental protection!

KEEP COOL



## CITY OF PETERBOROUGH FINAL REPORT 2017-18

### ▶ 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 **172** kids in **625** participant hours of inspiring environmental education!



**Mission: Turning Off Lights More**  
# of Families Reporting: **63**  
% Reporting Behaviour Change: **68%**

Reached an estimated 344 family members



**Mission: Taking Shorter Showers**  
# of Families Reporting: **77**  
% Reporting Behaviour Change: **69%**

Saved over **30,000kg** CO<sub>2</sub>e!



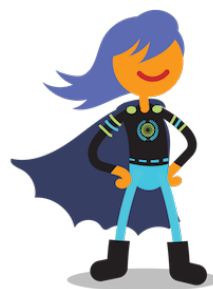
**Mission: Idling Less**  
# of Families Reporting: **75**  
% Reporting Behaviour Change: **69%**

**Mission: Driving Less**  
# of Families Reporting: **76**  
% Reporting Behaviour Change: **71%**

### ▶ FEEDBACK

Teacher survey results:

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



**85%** of kids feel like real-life Planet Protectors!

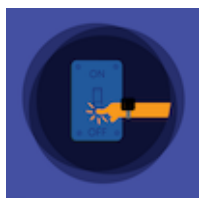
*"The class loved the videos and activities. Easy to use and your students will have a blast."* – David Buckley, Grade 3 Teacher

### ▶ RECOMMENDED NEXT STEPS

Based on this year's results, we would recommend delivering the program to 10 classrooms in 2018-19, with a specific focus on improving uptake in rural schools. We look forward to working with you to make this happen!

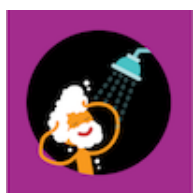


## ▶ APPENDIX 1: FULL BEHAVIOUR CHANGE RESULTS



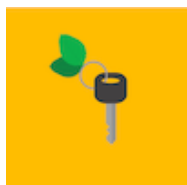
### MISSION 1: Operation Darkroom (easy, to get parents' buy-in) [63 reporting]

- Kids turning off lights more now: 73%
- Families turning off lights more now: 68%
- Kids pledging to turn off lights from now on 94%



### MISSION 2: Operation Shower Power (taking shorter showers) [77 reporting]

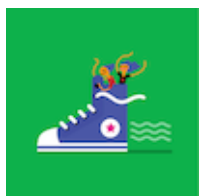
- Kids having shorter showers now: 77%
- Families having shorter showers now: 69%
- Kids pledging to have shorter showers from now on: 88%



### MISSION 3: Operation Keep Car Cool

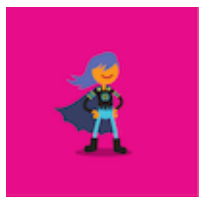
(reducing idling & speeding; proper vehicle maintenance) [75 reporting]

- Families idling less now: 69%
- Families speeding less now: 64%
- Families pledging to maintain their cars better: 68%
- Kids pledging to be Green Drivers when they grow up: 89%



### MISSION 4: Operation Go Car Free (active transportation) [76 reporting]

- Families driving less now: 71%
- Families walking more now: 61%
- Families cycling more now: 43%
- Families taking transit more now: 32%
- Families carpooling/ridesharing more now: 49%



### OVERALL PROGRAM

- Kids having fun doing this program: 91%
- Kids feel like real-life Planet Protectors now: 85%
- Kids pledging to be Planet Protectors from now on: 78%



## ▶ APPENDIX 2: TEACHER SATISFACTION RESULTS

3 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
- 100% said the PPA had a higher impact than other environmental education programs offered to their school
- 67% said the resource developed students' understanding of how human actions modify the physical environment
- 67% said the resource developed students' motivation and personal responsibility for protecting the planet

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

- 100% agreed that the resource increased their confidence to teach sustainability topics
- 100% 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
- 100% agreed that the resource helped them bring technology into the classroom
- 100% 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

*"Children love it and the content is relevant and relatable."*

- Suzanne Champaigne, Grade 2 Teacher

*"The class loved the videos and activities. Easy to use and your students will have a blast. My students could remember more things because it was done in a fun way."*

- David Buckley, Grade 3 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 **63**

#### Short-term savings

Baseline consumption in first 3 months (kWh)	141,750
x % of families who reported saving energy	69%
x % energy reduction (assumed)	5%
= Energy savings in first 3 months (kWh)	4,890
<b>CO2e savings in first 3 months (kg)</b>	<b>4,186</b>

#### Potential long-term savings (assuming 25% maintain)

Baseline consumption in subsequent 33 months (kWh)	1,559,250
x % of families who initially reported saving energy	69%
x % initial energy reduction (assumed)	5%
x % of families who maintain reduction for subsequent 33 months	25%
= Energy savings in subsequent 33 months (kWh)	13,449
<b>CO2e savings in subsequent 33 months (kg)</b>	<b>11,512</b>

#### Assumptions

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

### Driving Less

Number of families who reported the mission **76**

#### Short-term savings

Baseline kilometers driven in first 3 months	446,200
x % of families who reported driving less	71%
x % reduction fuel usage (assumed)	5%
Kilometres driven savings in first 3 months	15,840.09
<b>CO2e savings in first 3 months (kg)</b>	<b>3,960</b>

#### Potential long-term savings (assuming 25% maintain)

Baseline kilometres driven in subsequent 33 months	4,908,198
x % of families who initially reported driving less	71%
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	43,560
<b>CO2e savings in subsequent 33 months (kg)</b>	<b>10,890</b>

#### 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 = 30,548kg CO2e



## ▶ APPENDIX 4: SAMPLE PRESS RELEASE

### Young Green Superheroes Lead the Way in Peterborough

Peterborough, July 30, 2018

Almost 175 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!

*"The class loved the videos and activities. Easy to use and your students will have a blast."*

– David Buckley, Grade 3 Teacher

The students certainly made an impact, with 71% of parents ditching the car for a more sustainable alternative and 75% saving energy in the home!

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### 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

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