



The Green Team Program 2022-2023 Final Report

August 2023

The Center for EcoTechnology (CET) continued to administer the MassDEP Green Team program in the 2022-2023 school year with 280 participating teams from 246 schools across Massachusetts. Program participation increased by 28% compared to the 2021-2022 school year (221 teams), and more than 70% compared to 2020-2021 (165 teams). CET worked on several special projects, including a written case study of New Bedford Public Schools' district-wide waste reduction and recycling efforts, a new Green Team webpage hosting a list of Environmental Justice resources, and updated Green Team Idle Reduction Pledges now available in 6 languages, for students to share with their guardians.

Participation Summary

The following table details the Green Team program participation during 2022-2023 and trends during the previous five years.

	2022-2023	Change from Previous Year	2021- 2022	2020- 2021	2019- 2020	2018- 2019	2017- 2018
Participating Green Teams	280	27% Increase	221	165	411	382	317
Participating Schools	246	22% Increase	201	150	348	346	287
Participating Students	60,096	45% Increase	41,320	26,378	113,921	88,166	56,538
TRFs Submitted	49	81% Increase	27	19	44	72	59
TRF Submission Rate	18%	50% Increase	12%	12%	11%	19%	19%

During the 2022-2023 school year, the 280 Green Team registrations represented:

- 269 Teachers
- 246 Schools
- 60,096 Students

Most participants received a digital Green Team Kit containing a classroom poster, lesson plans, press release, and suggested activities; hard copy kits were mailed to teachers upon request (15 requests). A total of 49 teachers submitted response forms indicating the Green Team activities they conducted with their students, while over 3,700 students pledged to recycle and prevent pollution at home, at school, and in their communities. Green Team teachers reported a wide variety of achievements and actions their students took over the past year, including reducing food waste and Styrofoam trays in cafeterias, growing school pollinator gardens, collecting textiles, and integrating Green Team lesson plans into project-based learning curriculum.

While participation levels remain lower than prior to the COVID-19 pandemic, participation increased notably in 2022-2023 when compared with the previous school year. As pandemic restrictions eased and schools resumed normal operations, students and teachers alike embraced the opportunity to engage more actively, resulting in heightened involvement across our program activities.

As usual, many teachers registered early in the school year, with 151 teachers (54%) registered by the end of October 2022. New registrations slowed as the school year continued, with a small spike in registrations in March 2023, corresponding to the timing of an e-blast including a reminder to register and to submit Teacher Response Forms.

Outreach

During the year, CET conducts statewide outreach to increase participation and strengthen the network of program partners and supporters. CET conducted a variety of outreach activities this fiscal year, including virtual and in-person presentations and exhibitor events, electronic communications, and networking with partner organizations. In September 2022, CET emailed principals and superintendents from across the state to encourage them to share program information amongst their networks. CET also shared information about the Green Team program with partner organizations and municipal representatives that work with K-12. Mid-year, CET also reached out directly to teachers that registered for the program in past years but had not yet registered in the 2022-2023 school year.

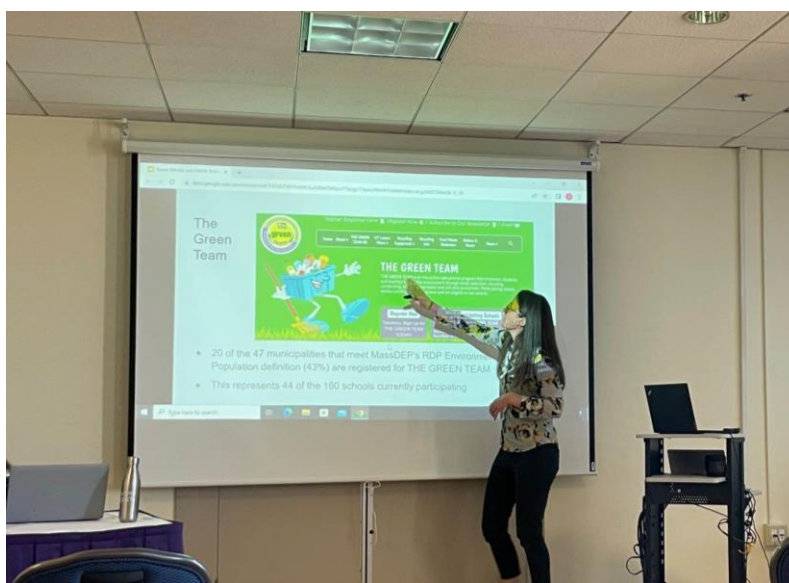
Green SWoRD (School Waste Reduction & Diversion) Working Group

In 2022, MassDEP initiated the [Green SWoRD](#) (School Waste Reduction & Diversion) as subgroup to the MassDEP Reduce & Reuse Working Group. This group is led by MassDEP Municipal Assistance Coordinators and focuses on several waste-related initiatives specific to

K-12 schools. CET actively participated by representing the Green Team program in quarterly stakeholder meetings, as well as the sub-working group meetings on the following topics:

- Institutionalizing School Waste Reduction & Diversion Policies
- Transitioning from Single Use Disposable to Reusable Food Serviceware
- School Organics Collection for On-Site & Off-Site Composting
- School Sustainability Program Kickoff & Events (Earth Day, America Recycles Day, Green Week, Locker/Desk Cleanout)

CET worked alongside the Green SWoRD and MassDEP team to write a proposal that was accepted by the **Massachusetts Environmental Education Society (MEES) for their 2023 Annual Conference** hosted at the College of the Holy Cross in Worcester. The hybrid presentation-workshop titled “The Power of Student Voice in Food Waste Reduction: Sharing Best Practices for Supporting K-12 Programs in Environmental Justice Communities” highlighted research-based best practices for reaching, supporting, and engaging schools with waste reduction goals in identified Environmental Justice Communities. Through school case studies, municipal resource guides, and grant-funding information, the presenters provided a road map for participants to expand resources and identify gaps to enact programs in underserved schools.



The Green Team at MEES 2023 Annual Conference in Worcester.

Conferences & Workshops

In addition to the MEES Annual conference, CET participated in the following events to share information about the Green Team program and waste diversion best practices for K-12 schools:

- September 2022 – **Massachusetts Health Officers Association (MHOA) Annual Conference in Falmouth.** CET exhibited and presented at MHOA Conference in Falmouth 10/26-10/27 to share resources related to both the RecyclingWorks and Green Team programs with municipal representatives, including public health professionals.
- November 2022 - **Massachusetts Facilities Administrators Association & Massachusetts Association of School Business Officials (MFAA-MASBO) annual conference.** CET tabled alongside colleagues at MassDEP to share resources for recycling and composting equipment, as well as best practices for reducing and diverting waste in schools.
- March 2023 - **MassRecycle Annual Conference and Trade Show.** CET hosted an exhibitor table to share information about equipment, resources, and technical assistance available to K-12 schools through the Green Team and MassDEP RecyclingWorks in Massachusetts program.



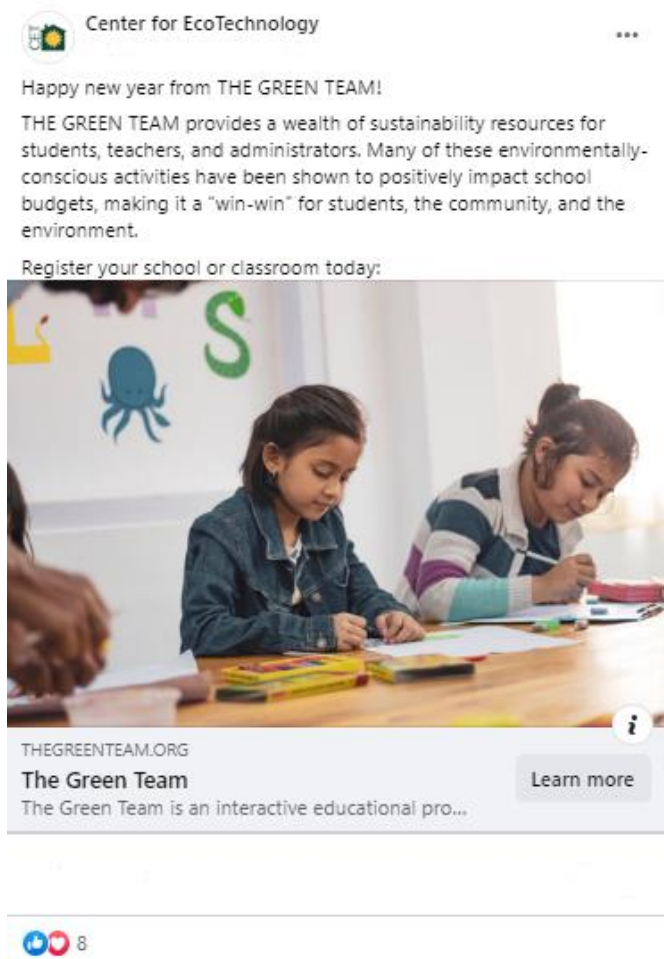
CET exhibiting for the Green Team and RecyclingWorks in Massachusetts at MassRecycle 2023 Annual Conference in Marlborough.

- March 2023 - **Springfield Farm to School Summit.** CET hosted an exhibitor table and engaged with teachers eager to participate in and expand upon environmental initiatives at their schools. This outreach event directly led to 14 new Green Team registrations.

Social Media

As in previous years, CET leverages its own social media channels, primarily Facebook and Instagram, to promote the Green Team Program. CET encouraged Green Team registration

through a [Facebook post](#) shared on January 6, 2023. The Facebook post was also boosted as a paid ad, reaching 17,112 users, resulting in 189 link clicks and 8 reactions. On May 31, 2023, CET also shared a celebratory post on both [Facebook](#) and [Instagram](#) commemorating the achievements of the 2022-2023 Green Team participants and award recipients. The Facebook post had an organic reach of 66 and 2 post engagements. The Instagram post had an organic reach of 87 and 9 reactions (likes and comments).

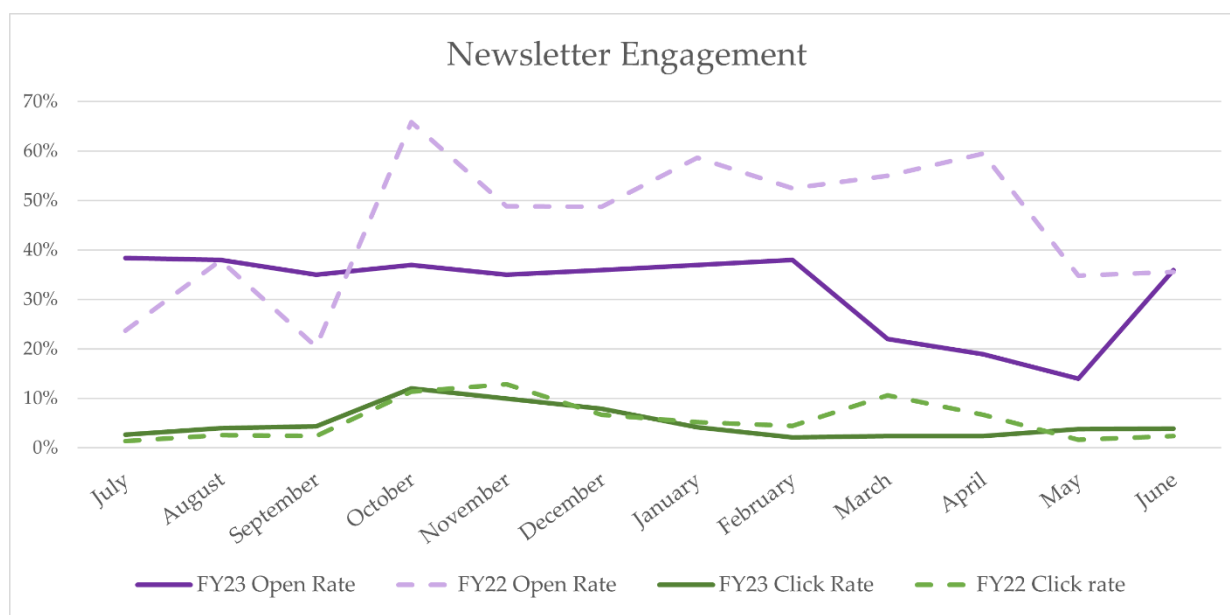


Newsletter Engagement

As shown in the table below, approximately 503 people opened the newsletter each month on average, representing a 32% open rate during FY23. The average click rate was 5.2%, higher than any of the previous four years. The Green Team newsletter engagement metrics outperform the average across industries. According to email marketing company MailChimp, the [average email campaign](#) open rate is 21.3%, with a click rate of 2.6% click rate.

Green Team Email Newsletter Metrics		
Fiscal Year	Average Open Rate	Average Click Rate
FY23	32.2%	5.2%
FY22	36.6%	3.7%
FY21	31.7%	4.1%
FY20	20.2%	2.4%
FY19	19.5%	2.3%

In general, newsletter engagement was steady between July 2022 and February 2023, lower in March-April 2023, and increasing again towards the end of the school year.



The e-blast sent in March to announce the Teacher Response Form deadline had similar engagement when compared to the regular monthly newsletter, with a 36% open rate, a 2.8% click rate, and 819 people opening the e-blast. The following e-blast in April received a 21.3% open rate, a 2.7% click rate, and was opened by 480 people.

Equipment & Materials

To help support waste diversion and idling reduction efforts in schools, MassDEP makes several different types of recycling, composting, and idle reduction equipment and materials available to Green Team program participants upon request.

Recycling and Composting Equipment

MassDEP provided recycling and composting equipment to 30 participating schools across the state to help support school waste reduction efforts. Equipment distributed included recycling set out bins, desk-side bins, wheeled totes, compost bins, and worms for vermicomposting. Demand for recycling desk-side bins, recycling carts, and compost bins increased substantially over recent years.

The following chart details the equipment distribution:

	2022-2023	2021-2022	2020-2021	2019-2020	2018-2019	2017-2018
Schools Receiving Equipment	30	23	12	38 (49 requests)	56 (60 requests)	62
New Programs*	7	6	5	24	24	32
Set Out Container	404	417	188	254	885	582
Recycling Desk-Side Bin	491	65	166	218	482	374
Recycling Cart	77	45	18	91	137	121
Compost Bin	31	4	2	21	27	52
Worm Vouchers	13	7	2	16	17	26

*Quantity represents all new composting and/or recycling programs.

One example of Green Team equipment in action this year comes from **HEC Academy in Northampton**, a public day special education program for youth in grades 9-12. The school received a composting bin from the Green Team program this year, as they started a student-led program to turn kitchen scraps into compost for their school garden:

"Students' participation in Green Team activities has brought our school together around the mission of reducing our food waste, utilizing our new compost bin to build the health of our school garden, and reduce our use of products. Green activities have built more of a sense of community in our school and have given students a concrete sense of how they can create change to help our environment." - Amy Stamm, HEC Academy, Northampton

Idling Reduction Signs and Materials

In FY23, sixteen schools requested IR materials. Nine out of these sixteen requests for signs and/or materials came from schools interested in starting new idling reduction programs.

	2022-2023	2021-2022	2020-2021	2019-2020	2018-2019	2017-2018
Schools Receiving IR Materials	16	<i>7</i>	<i>3</i>	<i>18</i> <i>(20 requests)</i>	<i>17</i>	<i>12</i>
New Programs	9	<i>5</i>	<i>2</i>	<i>13</i>	<i>13</i>	<i>11</i>
Idle-Free Zone Signs	61	<i>12</i>	<i>14</i>	<i>42</i>	<i>29</i>	<i>34</i>
5 Minute Idling Limit Signs	33	<i>10</i>	<i>8</i>	<i>66</i>	<i>67</i>	<i>35</i>
Idle Reduction Pledge Cards	650	<i>800</i>	<i>0</i>	<i>1650</i>	<i>1350</i>	<i>800</i>
Static Sticker Windshield Decals	450	<i>250</i>	<i>150</i>	<i>1800</i>	<i>1450</i>	<i>1050</i>
Bumper Stickers	350	<i>600</i>	<i>50</i>	<i>550</i>	<i>900</i>	<i>550</i>
School Bus Dashboard Stickers	350	<i>250</i>	<i>0</i>	<i>200</i>	<i>500</i>	<i>200</i>
Palm Cards	600	<i>800</i>	<i>200</i>	<i>3300</i>	<i>2500</i>	<i>2100</i>

In September 2022, MassDEP finalized updates to certain idle reduction materials, including new signage designs. CET posted images of the new signage to the website and idle reduction materials request form and highlighted the new signage in the October 2022 Green Team newsletter.



Updated idling reduction signage available to participants.

Awards

Green Team members were asked to submit a list of climate change, waste reduction, and clean air activities they had completed by March 31, 2023. This deadline was extended to April 15 to encourage more responses. CET sent all 48 classes that submitted Teacher Response Forms (TRF) award letters and Certificates of Recognition. **The 2022-2023 TRF submission rate was 17.5% (49 out of 280 registrants), compared to a 12% response rate the previous school year.** Grand prize winners received gift certificates to local pizza shops or a gift card to a local garden center. One grand prize winner expressed their appreciation, sharing that they were retiring that year and felt valued by the Green Team:

"Wow, thank you! ... This award is such a great way to end my time with you!"

- Bruce McBrien, Amesbury Elementary School,
Green Team Grand Prize Winner 2022-2023

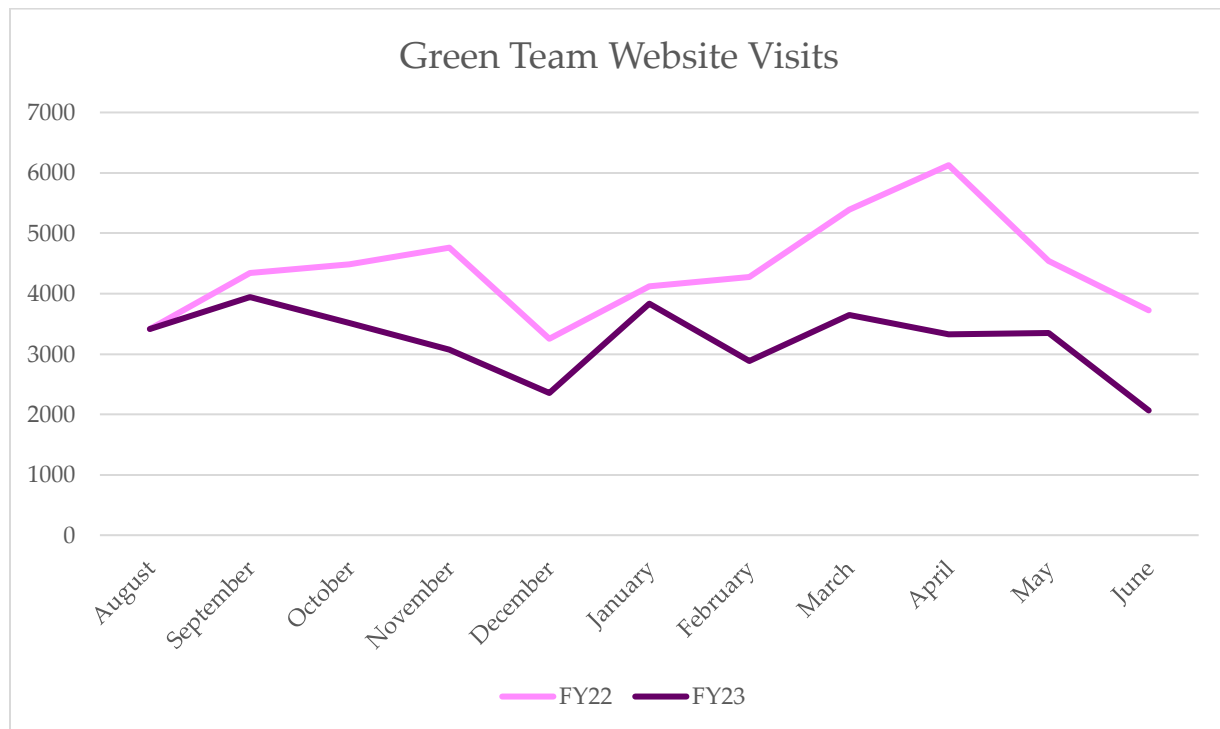
This educator also emphasized that they would coordinate continued participation for their school upon their departure. The other prize winners received bookmarks embedded with seeds to plant, reusable straw and utensil kits, compost activity books, wristbands, or pencils and key chains made from recycled materials. MassDEP posted a [press release](#) showcasing the accomplishments of the 2022-2023 Green Teams. This press release was shared widely through the [Green Team website](#), various newsletters, social media re-shares, and newspapers across the Commonwealth.

Website Metrics

Total sessions and users to the Green Team website decreased by 36% and 38% respectively in FY23. Web traffic was highest in September 2022 and January 2023. While the decrease compared to FY22 is notable, the website traffic from FY23 is in-line with pre-pandemic engagement (see table below). There are many factors that could influence website traffic data, including website design that is not optimized for mobile users. During FY24, MassDEP and CET are evaluating the level of effort required to complete a Green Team website design, tentatively to occur in FY25.

Green Team Website Traffic FY19-FY23:

	Total Sessions	Users	Page Views	Pages/Visit	Avg. Visit Duration	% New Visits
Total FY23	21,821	17,439	35,593	1.72	1:11	90.2%
Total FY22	33,953	28,244	51,337	1.51	0:59	90.6%
Total FY21	27,614	22,675	42,390	1.54	1:02	90.7%
Total FY20	27,077	22,119	46,374	1.71	1:20	90.8%
Total FY19	20,943	16,730	40,294	1.93	1:39	90.7%



Additional Program Administration

CET staff input registrations, sent [digital kits](#) to registered teachers, mailed Green Team kits to teachers when requested, forwarded equipment requests to MassDEP for distribution, corresponded with program participants, maintained the database of participating schools, solicited and entered Teacher Response Forms, prepared and delivered digital Certificates of Recognition, and mailed garden center and pizza party gifts cards.

CET regularly updated the Green Team website, including additions to the [Reduce & Reuse](#) and [Green Team Lesson Plans](#) pages. In addition, CET regularly updated links throughout the website as new resources were shared through the monthly newsletter. CET also updated the participating schools list and map throughout the 2022-2023 school year and posted both to the [Participating Schools](#) page.

Special Projects

Translated Team Idle Reduction Pledge Cards

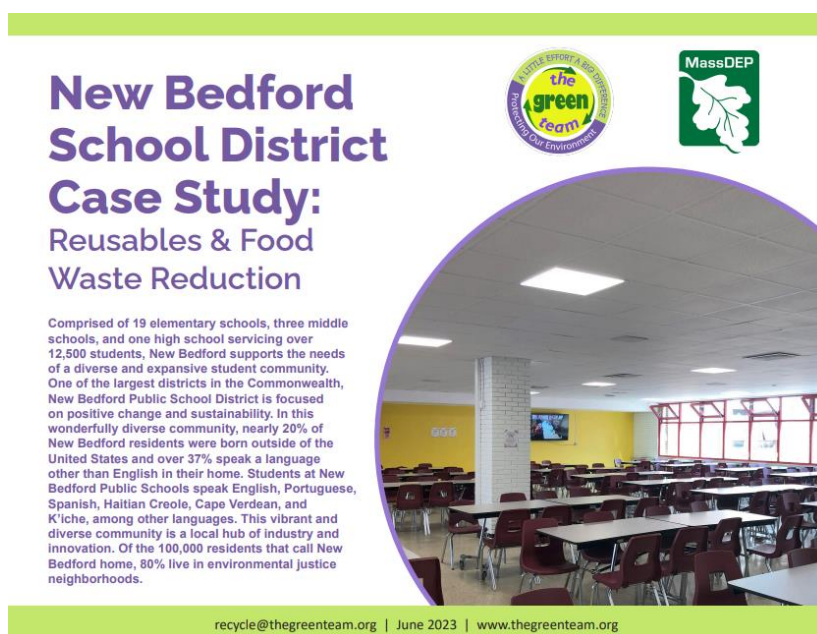
In FY23, CET and MassDEP prioritized the existing Green Team Idle Reduction Pledge for translation into six languages: Spanish, Portuguese, Simplified Chinese, Cape Verdean, and Haitian Creole. This pledge is intended for students to take home and increase awareness about the importance of reducing vehicle idling for clean air. Links to the translated pledge cards are available on the Green Team Kit Materials webpage, and additional translations may be available upon request.

 <p>THE GREEN TEAM Idling Reduction Pledge</p> <p>In our classroom we are learning about the benefits of clean air and actions that we can take to improve air quality. One way you can ensure cleaner air in our community and around our school is to turn off your vehicle's engine when waiting to pick up your child or running errands.</p> <p>Please sign and return the pledge below to let your child know that you are joining with other parents in our school's GREEN TEAM effort to improve air quality and help everyone breathe easier. By reducing idling you will:</p> <ul style="list-style-type: none"> • Protect students, school staff and drivers from harmful exhaust fumes • Reduce air pollutants that contribute to smog and global warming • Reduce fuel consumption • Reduce engine wear and tear • Save money on fuel and engine repairs  <p><small>Brought to you by the Massachusetts Department of Environmental Protection</small></p>	 <p>O Compromisso da GREEN TEAM de Desligamento do Motor</p> <p>Em nossa sala de aula, estamos aprendendo sobre os benefícios do ar limpo e as ações que podemos tomar para melhorar a qualidade do ar. Um modo de garantir um ar mais limpo na comunidade e arredores da escola é desligar o motor do seu veículo quando estiver esperando para buscar seu filho ou fazendo alguma coisa.</p> <p>Assine e devolva o compromisso abaixo para que seu filho saiba que você está se unindo a outros pais no esforço da GREEN TEAM para melhorar a qualidade do ar e ajudar todos a respirar melhor. Mantendo o motor desligado, você:</p> <ul style="list-style-type: none"> • Protege alunos, funcionários e motoristas contra gases de escape nocivos • Reduz poluentes atmosféricos que causam poluição e aquecimento global • Reduz o consumo de combustível • Reduz o desgaste do motor • Economiza dinheiro com combustível e reparos no motor  <p><small>Promovido pelo Departamento de Proteção Ambiental de Massachusetts</small></p>
<p>----- cut here -----</p>	
 <p>IDLING REDUCTION PLEDGE</p> <p>I, _____ hereby pledge to my child, _____</p> <p>Parent/Guardian's Name Student's Name</p> <p>that I will IMPROVE AND PROTECT AIR QUALITY in our community by turning off my vehicle's engine when I am parked or waiting.</p> <p>Signed by _____ Date _____</p> <p>Parent/Guardian's Signature</p> <p>Witnessed by _____ Date _____</p> <p>Student's Signature</p>  <p><small>Printed on 100% post consumer recycled paper with vegetable based ink</small></p>	 <p>COMPROMISSO DE DESLIGAMENTO DE MOTOR</p> <p>Eu, _____ me comprometo com meu filho(a), _____</p> <p>Nome do pai, mãe ou responsável Nome do estudante</p> <p>em MELHORAR E PROTEGER A QUALIDADE DO AR em nossa comunidade desligando o motor do meu veículo quando estiver estacionado ou esperando.</p> <p>Assinado por _____ Data _____</p> <p>Nome do pai, mãe ou responsável</p> <p>Testemunhado por _____ Data _____</p> <p>Assinatura do estudante</p>  <p><small>Impresso em papel 100% reciclado pós-consumo com tintas de origem vegetal</small></p>

Green Team Idle Reduction Pledge in English and Portuguese. Visit the [Green Team Kit](#) webpage to view other translations.

Written Case Study of a School District's Transition to Reusable Trays

CET developed a [written case study](#) highlighting the New Bedford Public School District's five-year transition from Styrofoam to reusable trays. CET met multiple times with the New Bedford Public Schools team, both virtually and in-person, to discuss progress, challenges, and solutions. CET posted the case study to the [Reduce & Reuse](#) page on the Green Team website, also promoted the written case study on [Facebook](#), [Instagram](#), and in the [July 2023 Green Team newsletter](#).



[Click to view](#) the full written case study featuring New Bedford Public Schools.

Educational Resources Related to Environmental Justice

CET published a [new webpage](#) to the Green Team website to host a collection of videos, reading materials, and lesson plans regarding environmental justice. The aim of this collection is to help educators incorporate environmental justice into their curriculum and empower students to act.

Green Team in the Media

The following schools were highlighted in local media. CET requests links such as these from Green Team teachers and support contacts across the state. These links are also posted to the [Green Team in the Media webpage](#).

Melrose: Winthrop Elementary School

As part of a collaboration between the Melrose Department of Public Works (DPW), Melrose Shaw's Supermarket, and Winthrop Elementary Art Teacher Kendra Robertson, Winthrop

School [kindergarteners and first graders decorated 200 recyclable Shaw's grocery bags](#) with environmental messages and drawings to raise awareness of Earth Day.

Melrose: Melrose High School

Melrose High School students are doing their part to reduce waste and improve their community's composting system. [Check out the student-led pilot program](#) they started this year!

Manchester: Manchester Essex Regional Middle School

The [Gloucester Daily Times recently highlighted](#) how Manchester Essex Regional Middle School's Green Team in Manchester participated in the Trex Plastic Film Recycling Challenge.

Watertown: Hosmer Elementary School

Hosmer Elementary School in Watertown was [recently featured in the season premiere](#) of PBS's Ask This Old House. Carpenter Nathan Gilbert and landscape contractor Jenn Nawada teamed up with Elizabeth Kaplan, K-7 Math and Science Coordinator, to teach students about composting and build a new compost bin for the school gardens.

Easthampton: Mountain View School

Starting this fall, sixth, seventh, and eighth grade students in Easthampton will partake in an outdoor environmental curriculum made possible by a \$25,000 grant from the Easthampton Learning Foundation, as well as educators from the Massachusetts Audubon Society's Arcadia Wildlife Sanctuary and the new Mountain View School. As [reported by the Daily Hampshire Gazette](#), the proposal includes in-service training for teachers, outdoor lessons for students, and student-led culminating projects.