



JULY 2024

THE GREEN TEAM PROGRAM

2023-2024 FINAL REPORT





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The Green Team Program 2023-2024 Final Report

The Center for EcoTechnology (CET) continued to administer the MassDEP Green Team program in the 2023-2024 school year, with 359 participating Green Teams from 320 schools across Massachusetts. Program participation increased by 28.2% compared to the 2022-2023 school year (246 teams), and more than 62% compared to 2021-2022 (221 teams). CET worked on several special projects, including a written case study of Lawrence Family Development Charter School’s composting, waste reduction, and recycling efforts, and evaluating and improving the current Green Team website for accessibility and ease of registration.

Participation Summary

The following table details the Green Team program participation during 2023-2024, as well as trends during the previous five years.

	2023-2024	Change from Previous Year	2022-2023	2021-2022	2020-2021	2019-2020
Participating Green Teams	359	28.2% Increase	280	221	165	411
Participating Schools	320	30.1% Increase	246	201	150	348
Participating Students	55,935	6.9% Decrease	60,096	41,320	26,378	113,921
TRFs Submitted	65	32.7% Increase	49	27	19	44
TRF Submission Rate	18.1%	0.6% Increase	18%	12%	12%	11%

During the 2023-2024 school year, the 359 Green Team registrations represented:

- 311 Teachers
- 320 Schools
- 55,935 Students
- 144 (40.1%) Green Teams located in Environmental Justice Communities, as identified by MassDEP

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 (3 requests). 1,258 individuals downloaded the digital Green Team Kit. A total of 65 teachers submitted response forms indicating the Green Team activities they conducted with their



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students, while over 5,370 (45% increase from 2022-2023) 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 through share tables, diverting food waste through cafeteria sorting stations, growing school pollinator gardens, collecting textiles, establishing idle-free zones, and integrating Green Team lesson plans into project-based learning curriculum.

While the number of total students participating in Green Teams decreased, the reported activities and overall engagement through Teacher Response Forms and email was higher.

180 (50%) Green Teams registered before the end of December 2023. 70 (19%) Green Teams registered in January, following a direct outreach effort to send personalized emails to teachers who registered in previous school years. 81 (23%) Green Teams registered in April following a Teacher Response Form e-blast in March and follow-up from in-person tabling events in the spring. Registrations were accepted until June 15, 2024.

Outreach

During the year, CET conducts statewide outreach to increase participation and strengthen the network of program partners and supporters. CET conducted various outreach activities this fiscal year, including virtual meetings, in-person presentations, exhibitor events, electronic communications, and networking with partner organizations. CET also shared information about the Green Team program with partner organizations and municipal representatives that work with K-12 schools. Mid-year, CET also reached out directly to teachers that registered for the program in past years but had not yet registered in the 2023-2024 school year. This resulted in 70 new registrations.

Green SWoRD (School Waste Reduction & Diversion) Working Group

CET continued to actively participate in [Green SWoRD](#) (School Waste Reduction & Diversion) 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

Conferences & Workshops

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



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- October 2023 – **Massachusetts Health Officers Association (MHOA) Annual Conference in Falmouth.** CET exhibited and presented at the MHOA Conference to share resources related to both the RecyclingWorks and Green Team programs with municipal representatives, including public health professionals.
- October 2023 - **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 2024 - **Massachusetts Farm & Sea to School Conference.** CET hosted an exhibitor table and networked with nearly 300 farm-to school advocates, including dining service programs and schools from across the state.
- March 2024 – **Massachusetts Environmental Education Society (MEES) Conference.** CET hosted an exhibitor table to share Green Team and RecyclingWorks resources with environmental extracurricular programs, camps, special programs, and schools.
- March 2024 - **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 RecyclingWorks programs.
- March 2024 - **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. CET led a workshop sharing composting resources, equipment tutorials, curriculum library resources, technical assistance, and registration information. This outreach event directly led to 20 new Green Team registrations.
- May 2024 - **Healthy Programs, Healthy Kids Summit.** CET joined MassDEP to share Green Team and RecyclingWorks resources and technical assistance with dining and food service directors and various other health and wellness coordinators from schools across the state.



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Green Team and Massachusetts Department of Environmental Protection colleagues tabled together at the MEES Conference.

Social Media

As in previous years, CET leverages its own social media channels, primarily Facebook and Instagram, to promote the Green Team Program. Between July 1, 2023 and June 30, 2024, CET made 15 posts about the Green Team on both Facebook and Instagram, 13 more than last year. On Facebook, these posts were seen 2,688 times, reaching 2,506 users, and resulting in 154 reactions. On Instagram, these posts had a reach of 2,200 accounts and 183 engagements (likes and comments). Three of these posts were videos, and their combined view count is over 1,000. All these results were achieved without paid promotion.

Newsletter Engagement

On average, 1,371 people opened the newsletter each month, representing a 37.7% open rate during FY24. In December, CET expanded the recipient list to include Green Team contacts acquired through outreach who were not previously receiving the newsletter. Between July and

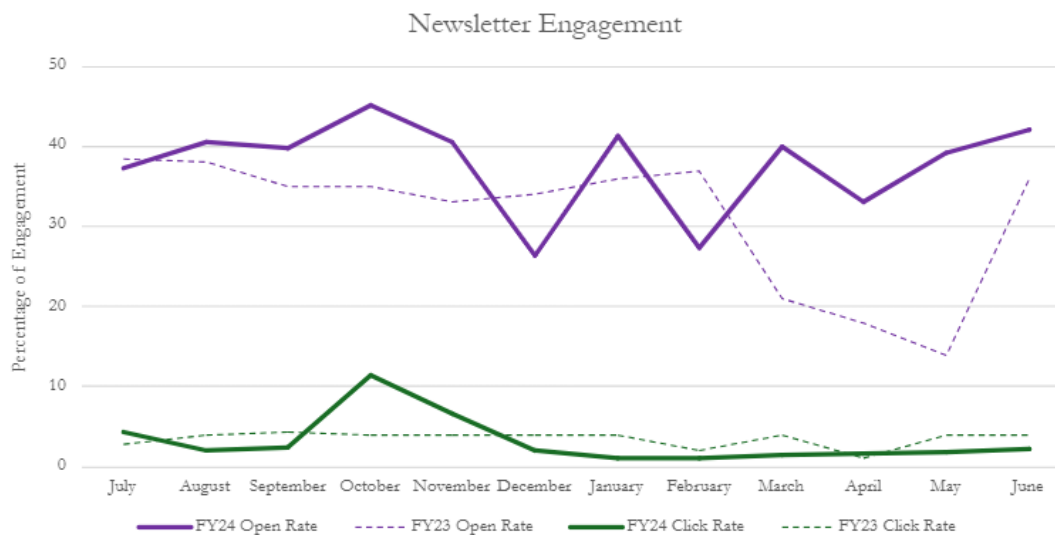


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November, the average number of recipients per newsletter was 2,280. After the expansion, the average number of recipients per newsletter was 5,567. For the year, the average number of recipients per newsletter was 4,197. The average click rate was 3.2%. The Green Team newsletter engagement metrics outperform the average across industries; according to email marketing company MailChimp, the [average email campaign](#) open rate is 35.6%, with a click rate of 2.6% click rate.

Green Team Email Newsletter Metrics		
Fiscal Year	Average Open Rate	Average Click Rate
FY24	37.7%	3.2%
FY23	32.2%	5.2%
FY22	36.6%	3.7%
FY21	31.7%	4.1%
FY20	20.2%	2.4%

In general, newsletter engagement was steady between July 2023 and October 2023, lower in December 2023 and February 2024, spiking in January 2024, 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 35% open rate, a 2% click rate, and 1,667 people opening the e-blast.



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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 38 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.

The following chart details the equipment distribution:

	2023-2024	2022-2023	2021-2022	2020-2021	2019-2020
Schools Receiving Equipment	38	30	23	12	38 (49 requests)
New Programs*	16	7	6	5	24
Set Out Containers	685	404	417	188	254
Recycling Desk-Side Bins	452	491	65	166	218
Recycling Carts	115	77	45	18	91
Compost Bins	34	31	4	2	21
Worm Vouchers	9	13	7	2	16

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

One example of Green Team equipment in action this year comes from **Minuteman Vocational Technical High School** in Lexington. The school received 125 set-out bins and 15 wheeled carts to start a pilot recycling program.

“Our recycling pilot program is off to a great start! This was an amazing educational experience for all the students involved. The Green Team is a wonderful resource, and we are lucky to have you here in Massachusetts!” - Jennifer Ganley, MVTHS, Lexington



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The Green Team coordinated with Oxford High School to meet at the MEMA facility to receive recycling equipment.



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The Lt. Elmer McMahon Green Team collects food scraps to process in the outdoor compost bin they received this school year.

Idling Reduction Signs and Materials

In FY24, eleven schools requested IR materials. Five out of these eleven requests for signs and/or materials came from schools interested in starting new idling reduction programs.

	2023-2024	2022-2023	2021-2022	2020-2021	2019-2020	2018-2019	2017-2018
Schools Receiving IR Materials	11	16	7	3	18	17	12
New Programs	5	9	5	2	13	13	11
Idle-Free Zone Signs	63	61	12	14	42	29	34
5 Minute Idling Limit Signs	12	33	10	8	66	67	35



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Idle Reduction Pledge Cards	900	650	800	0	1650	1350	800
Static Sticker Windshield Decals	835	450	250	150	1800	1450	1050
Bumper Stickers	594	350	600	50	550	900	550
School Bus Dashboard Stickers	27	350	250	0	200	500	200
Palm Cards	1565	600	800	200	3300	2500	2100



Manchester-Essex Regional High School students aim to reduce idling at their school during high traffic pickup and drop off times.



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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, 2024. This deadline was extended to encourage more responses. CET sent all 65 classes that submitted Teacher Response Forms (TRF) award letters and Certificates of Recognition. The 2023-2024 TRF submission rate was 18.1% (65 out of 359 registrants), compared to a 17.5% response rate the previous school year. Grand prize winners received gift cards to be used for a celebratory party or equipment to support their Green Team program. Grand prize winner HEC Academy decided to use the gift card to purchase cooking equipment for their in-house garden-to-table kitchen program.

“Students developed a sense of shared accomplishment, observed what can happen when people speak up for a good cause, and seemed to enjoy working together.”

Christopher Casavant, Furnace Brook Middle School, Marshfield

The other prize winners received bookmarks embedded with seeds to plant, reusable straw and utensil kits, and vinyl water bottle stickers. MassDEP posted a [press release](#) showcasing the accomplishments of the 2023-2024 Green Teams. This press release was shared widely through the [Green Team website](#), various newsletters, social media re-shares, and newspapers across the Commonwealth.



[Foster Elementary School](#) students commemorate earning their certificates and prizes.



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Website Metrics

Total sessions increased by 44.6% and users to the Green Team website decreased by 19.9% in FY24. CET is currently redesigning the website to increase accessibility and visibility for all aspects of the program.

Green Team Website Traffic FY20-FY23:

	Total Sessions/Views	Users	Page Views	Views per User	Avg. Visit Duration	% New Visits
Total FY24	31,564	13,972	-	2.26	0:44	-
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%

*Starting in July 2023, Google Analytics (G4) simplified the analytics, which adjusted user information and combined sessions and views.

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 prizes.

CET regularly updated the Green Team website. 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 2023-2024 school year, and posted both to the [Participating Schools](#) page.

Special Projects

Written Case Study of a Charter School’s Recycling and Food Waste Reduction and Diversion Program

CET developed a [written case study](#) highlighting food waste diversion and recycling at Lawrence Family Development Charter School (LFDCS) in Lawrence. CET met multiple times with the LFDCS team, both virtually and in-person, to discuss progress, challenges, and solutions. CET posted the case study to the [Case Studies](#) page on the Green Team website, and



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also promoted the written case study on [Facebook](#), [Instagram](#), and in the [August 2024 Green Team newsletter](#).

Lawrence Family Development Charter School Case Study: Wasted Food Reduction

Founded in 1995, Lawrence Family Development Charter School (LFDCS) consists of three academic buildings divided by grade level in the center of Lawrence, Massachusetts. LFDCS enrolls 800 pre-K-8th grade students and employs 58 staff members and 9 administrators. The school is dedicated to fostering a learning environment that focuses on empowerment, inclusion, social-emotional growth, and 21st Century skills. Lawrence, Massachusetts is a city of industry with a deep-rooted history in the textile mills of the mid-1800s. Lawrence is home to approximately 88,100 residents, including over 13,000 students from pre-kindergarten through twelfth grade. Approximately 43% of Lawrence residents were born outside of the United States, over 77% speak Spanish and/or Spanish Creole in addition to English, and more than 82% identify as Hispanic and/or multiracial.



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[Click to view](#) the full written case study featuring Lawrence Family Development Charter School.

Newsletter Spotlight: Minuteman Regional Vocational Technical High School

CET developed a written spotlight to showcase Minuteman Regional Vocational Technical High School's new recycling program. This spotlight was shared in the [June 2024 newsletter](#). Through virtual and in-person visits, as well as distribution of recycling equipment, the Minuteman Green Team implemented a recycling program on campus that is expected to divert an estimated 22 tons of single stream material from the waste stream each school year. The [Minuteman Green Team created a video](#) to encourage participation across campus that was also shared in the June 2024 newsletter.



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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](#).

Cohasset Public Schools Recycling Project Turns Plastic Bags Into Park Benches

The Town of Cohasset has collected over 1,600 single use plastic bags to be transformed into park benches. The Town's Sustainability Planner and Grant Coordinator, Montanna Cassel, teamed up with the Cohasset school Green Teams and NexTrex to turn trash into treasure.

New Bedford Schools Succeeding in Their Efforts to Reduce Waste

New Bedford Public Schools (NBPS) are doing their part to reduce waste. In one grant funded project, the school district has eliminated the use of more than 1.6 million Styrofoam meal trays annually. In another project, several schools are diverting food waste from the trash to be composted. Reducing waste is important since the Crapo Hill Landfill has limited remaining capacity.

North Andover Public Schools Compost Lunchtime Food Scraps

"In the first six weeks of the 2023-2024 school year, over 10,000 pounds of uneaten food scraps and other organic matter (lunch trays, napkins, brown lunch bags) has been diverted from going to the trash, and instead is being picked up by compost hauler, Bootstrap Compost, to be turned into nutrient-rich soil that can be used again to plant crops. In addition, the schools are saving upwards of 45 trash bags per day across the school cafeterias... This is a significant amount of waste that would otherwise go into a landfill or over to the trash plant on Holt Road in North Andover to be incinerated, but instead is being sorted so that the organic matter generated is going to local farms in Massachusetts and being gradually turned into compost."

Hingham Public Schools Celebrate Foster Elementary School's Green Team

The Foster Elementary School Green Team incorporated curriculum and hands-on learning through different science experiments. Students examined the effects of carbon dioxide, applying their observations to a global perspective and shedding light on the potential impacts of heat-trapping gases on the environment. They also took a proactive and introspective approach to food waste diversion through cafeteria audits and discussions, which resulted in the students identifying possible causes of food waste in their cafeterias and helping guide change in the school culture around these habits.

HEC Academy, Northampton: 2024 U.S. Department of Education Green Ribbon Schools Announced



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Green Team participants HEC Academy of Northampton were recognized for “reducing environmental impact and costs, improving health and wellness, and offering effective sustainability education... This year’s U.S. Department of Education Green Ribbon Schools are leading school transformation in states that will help ensure all students in all communities have the opportunity to grow to become strong and healthy learners,” stated U.S. Secretary of Education Miguel Cardona. “This year’s awardees range from early learning centers to postsecondary institutions. Notably, half are located in under-resourced communities. These awards represent thousands of students, and countless hours of hard work in schools and on college campuses, ensuring equitable access to healthy, climate-resilient learning environments where students are prepared for the sustainability challenges of the present and future.”

City of Lowell's Solid Waste & Recycling Coordinator Wins 2024 Green Difference Award

The City of Lowell is pleased to announce that Chris Sullivan, Solid Waste & Recycling Coordinator, has been selected as the recipient of the 2024 Green Difference Award by Project Green Schools. This prestigious award recognizes honorees with exemplary leadership in energy, environment, and climate, and that inspire others to take action toward a healthier and more sustainable planet... Project Green Schools, as part of its mission, recognizes advocates and leaders who are making significant contributions to sustainability and environmental conservation. Mr. Sullivan and his team's efforts, particularly the plan to relaunch the Green Team Program in partnership with Lowell Public Schools, have been instrumental in furthering environmental education for our community and inspiring sustainable habits every day. As part of DPW's Strategic Plan, Mr. Sullivan will continue to work with the Sustainability Division to develop a truly comprehensive Green Plan for Lowell.”

Healey-Driscoll Administration Announces Green Team Awards for Environmental Stewardship in Schools Across State

“The Healey-Driscoll Administration congratulates all the Green Team teachers and students for showing outstanding leadership during the past school year,” said Energy and Environmental Affairs Secretary Rebecca Tepper. “Green Teams raise environmental awareness and promote waste reduction, reuse, recycling, and composting in their schools, homes, and communities. This is another example of our commitment to expanding partnerships with municipalities to build a more sustainable future.”

Green Team Leader Feedback:

“Thanks so much for helping in making [the equipment distribution day] possible. I have the recycle bin in our classroom and we already assembled the compost bin.”

Gail Hamm, Learning Prep School, West Newton



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"The kids love this program. Very empowering!"

Teresa Strong, Chittick Elementary School, Hyde Park

"Your recycling bin program is really perfect timing for us...it feels like a gift to our school"

School Administrator at the February 6th Equipment Distribution Event

"Our students, not only got to see the benefits of reducing waste in our school, but took their practices to the community... to make a change for the better."

Catherine Coviello, Blueberry Hill School, Longmeadow

"Our students got to experience trial and error. They got to plant and have the excitement of seeds sprouting!"

Denis Porcello, Brookside Elementary School, Dracut

"Students developed a sense of shared accomplishment, observed what can happen when people speak up for a good cause, and seemed to enjoy working together."

Christopher Casavant, Furnace Brook Middle School, Marshfield

"The Green Team students and the entire school community has benefited from these activities as they have beautified the school grounds (through the litter cleanups), helped reduce waste in the cafeteria and classrooms, educated the public about issues like stormwater pollution and actions we can all take to protect our planet."

Rachel Oliveri, Gibbs School, Arlington

"The students benefit greatly from the "Green Teams" offerings and lesson plans. The students are proud of their work and enjoy the "Green Teams" opportunities to learn about recycling, reduce and reuse programs."

Brian Francis Keller, Pine Cobble School, Williamstown

"It gave the kids a sense of accomplishment and pride. They realized it's not as hard to be 'Green' as they thought and eventually became home monitors to make sure the trash was reduced and in general, they were more aware."

Rahin Sayyed, MetroWest Muslim Homeschoolers, Northborough



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"The Green Team connected the dots. Where is our food coming from, how much effort & resources go into it, why is food not trash, what happens if food does land in trash (someone else can't eat it, all resources lost, landfill/incinerators that contribute to climate change), students felt very much empowered because a simple action (save the food) has such a big effect."

Christin Eigenmann, Foster Elementary School, Hingham

"Students increased their knowledge and understanding regarding sustainability and recycling especially what it means to them in their personal lives and on a community level."

M. Cheryl Lockett, Somerset Middle School, Somerset

"Students engendered interest in the environment and sustainability and educated their peers."

Allison Leichtman, Norwood High School, Norwood

"Many have learned the importance of taking care of our earth, by growing their own food, and buying close to home; and reducing, reusing and recycling helps keep the trash from piling up. Students have also learned that food waste is better to compost than throw away as it is a great fertilizer for our gardens and lessens the amount of trash piling up."

Paula Duhon, Lee Elementary School, Lee

"The students are beginning to see that their everyday living leaves a footprint. They are eager to act on composting, recycling, and want to work on car idling."

Ellen Andrews, Liberty Elementary, Springfield

"We were able to see as a group how many things can be recycled and what new purposes items can have."

Monica Carpenter, Youth Center Inc., Cheshire

"It's wonderful to see their enthusiasm and motivation - even at such a young age!"

Mandi Imasogie, Atkinson Elementary School, North Andover



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"They have a newfound sustainability mindset and they are taking this knowledge and passion home and educating their families about ways they can reduce waste and go "green" at home and within the community. I had several kids ask Santa for compost bins this Christmas because they were so inspired by our work together learning about composting! Thank you for these wonderful resources and programs! Sustainability and taking care of the Earth is one of my favorite things to teach my young learners about because they are so inspired and care so much about doing their part to protect our environment and world."

Katara Harding, Francis T. Bresnahan Elementary School, Newburyport

"The students learned many ways in which they can make a difference conserving energy. They learned the importance of being an energy conservationist."

Miriam Robinson, Federal Street School, Greenfield

"They really care about the community more. They are using positive peer pressure to encourage recycling."

Jill Stiles, South Shore Christian Academy, Weymouth

"The activities make real world connections to the things they are reading about/learning in their classrooms. What they are learning they can share with the greater community."

Teresa Strong, Chittick Elementary, Hyde Park

"The students love being a part of the Green Team. While it seems we have a small group, they do a great job of spreading the message of environmental stewardship throughout the school."

Bethany Sager, Dale Street School, Medfield

"We have cut back on our daily garbage. The students demonstrate an awareness of ecofriendly conservation practices."

Karianna Brace, River Valley Charter School, Amesbury



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"I think many students learned personal responsibility about recycling and waste, along with choices like food and clothes shopping."

Tommy Hayes, English High School, Jamaica Plain

"Recycling has improved in our cafeteria!!! Students are more aware of reuse and recycle!"

Kathleen Cerruti, Cohasset Middle School, Cohasset

"The experience alone is a catalyst that will continue for families."

Elizabeth Lawton, Rainbow Workshop Learning Center, Assonet

"Students see the success of their individual and collective action, and the school is making progress towards its green goals."

Andrew Thompson, Newton South High School, Newton Center

"Our students all love to compost and educate other students about it! You should see our 6-year-olds, they are the cutest with their aprons and oversized gloves!"

Cheryl Means, Kittredge Elementary, North Andover

"Thank you for all the resources you provide!"

Becky Acheson, Gates Elementary School, Acton

"The Green Team continues to be one of our most popular activities."

Paul Flanigan, Frost Middle School, Lawrence

"This project has brought our school community together."

Amy Stamm, HEC Academy, Northampton

"We focused on the kids taking the initiative and advocating to make change."

Melissa Vallarelli, Vinson Owen Elementary School, Winchester



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“Students were able to do field study in a local habitat that most did not know was there before the visit.”
Heather O’Brien, McKay School, Boston