UCONN UNIVERSITY OF CONNECTICUT



Shades of Becoming Green The Expansion of Enfield High School's Composting and Recycling Program

Project Motivation & Goals

Motivation 1: More than 60 billion pounds of mineral-rich food go to landfills each year in the U.S. alone, with U.S. schools specifically wasting over 530,000 tons of food annually.¹ That's right, sadly, about 70% of the waste that we throw away without a second thought could be repurposed to create a nutrient rich product that supports healthy soil and can grow nutritious food without using chemical fertilizers. When food waste rots in a landfill it releases harmful greenhouse gasses. According to the U.S. Environmental Protection Agency, food is the single largest category of waste put in landfills.² However, when food is composted, it releases no greenhouse gasses at all, effectively reducing emissions.

Motivation 2: My belief is if students practice and learn about the effects of recycling and composting now, our future generation of adults will continue this habit throughout adulthood. The recycling "habit" developed in school can serve to transform our communities, our jobs, and our nation as we recycle more and more of the products we consume and the resources used to manufacture them.

Goals: My project comprised three phases: Phase 1-Expand the current recycling practices in our Enfield High School (EHS); Phase 2-Develop a Compositing Program to support our community garden; Phase 3-Create an Educational Program to support both Phase 1 and 2 then spread awareness to other school levels within the Enfield community.





Fig 1a & b: Installing signage and informational flyers on newly installed recycling bins throughout Enfield High School.

Methods

- 1. **Research Phase:** Explored current recycling practices with custodial staff and school principal.
- 2. Develop a Working Recycling Program & part time Composting Initiative: a. Collected data on student knowledge and practices regarding recycling and composting via a survey 3 (Fig. 4).
 - b. obtained a town funded recycling bin and created recycling awareness posters for the new cafeteria recycling bin (Fig. 1).
- 3. Develop an Action Plan to Spread Awareness using Teach In Model⁴ focused on Informing, Promoting and Empowering (Figs. 2 & 3).
- 4. Spread Ongoing Awareness using Composting Weekly Chart⁵ (Fig. 6), Public Service Announcement ⁶ (Fig. 5c) and Earth Day Celebration District-Wide (Fig. 8).





Fig 3: Practicing Teach In at local **Barnes and Noble** bookstore. Read aloud books to support Teach In Model focused on informina promoting & empowering students to teach about

1. Karidis, Arlene. "A Story of Solid Waste Industry, Inclusion and Environmental Justice." Waste 360, 13 Dec. 2023, www.waste360.com/business/story-solid-waste-industry-inclusion-and-environmental-justice. 2. Why Should We Care about Food Waste?" USDA, www.usda.gov/foodlossandwaste/why. Accessed 24 Jan. 2024. 3. Ground, Kiss the. "How to Compost at Home." EcoWatch, 5 Oct. 2021, www.ecowatch.com/compost-at-home-2492036289.html

NRCA Student: Izzy Dinnald; Community Partners: Mrs. Desrocher, Principal Clark, Enfield High School, Town of Enfield

Project Outcomes

• Overall the student survey responses indicated that: (Fig. 4):

- a. most students do not compost at home, do understand what composting is and think it is important to compost; b. they also understand what recycling is and do recycle at home
- c. the majority of students would, if available, discard materials in a compost bin if they could.
- Expanded the current Recycling Program to include our school cafeteria at Enfield High School with support of Town Director, Principal and custodial staff (Figs. 1 & 7b).
- Began Composting Program at Enfield High School, which was fully funded by our local Home Depot (Figs. 5a & 7a). • Spread awareness of the impact both recycling and composting can make locally and globally. Created a PSA (public
- service announcement) for all Enfield High School (Fig. 5c), followed by signage at each station for Composting and Recycling throughout the school (Fig. 1).
- model (Fig. 8).



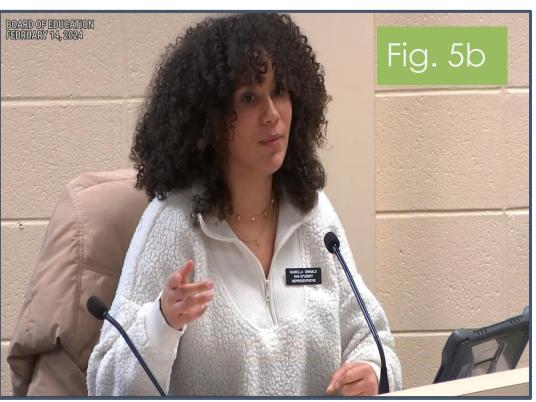




Fig. 5: (a) Put together and installed composting barrel donated by community partner at EHS to align to ublic Service Announcement chool-wide. (b) Presenting CAP project at Board of Education meeting. (c) Eagle Nest News broadcasted via Youtube PSA



saving our environment through the use of literacy.

Community Partnership

- Creating a long-lasting recycling/composting system within an educational institution requires partners at all levels of the school.
- I partnered with Enfield High School **Principal Mrs. Clark** to get approval for my action plan and support throughout this project (Fig. 7b). I created an action plan with my mentors Mrs. Desrochers and Andy Zhang. My action plan included community support with our local Home Depot to fund my project (Fig. 7a) and support from our Enfield Town Facilities Manager. I also included our Sustainability Club and Gardening Club in my action plan who is led by Mrs. Desrochers and Mrs. Siegrist.
- My expectation for this project is to live on after the CAP experience in the following ways: 1) inform students about environmental issues;⁷ 2) promote concepts and values of reducing waste; 3) empower my community with sustainability skills necessary for long-term solutions.

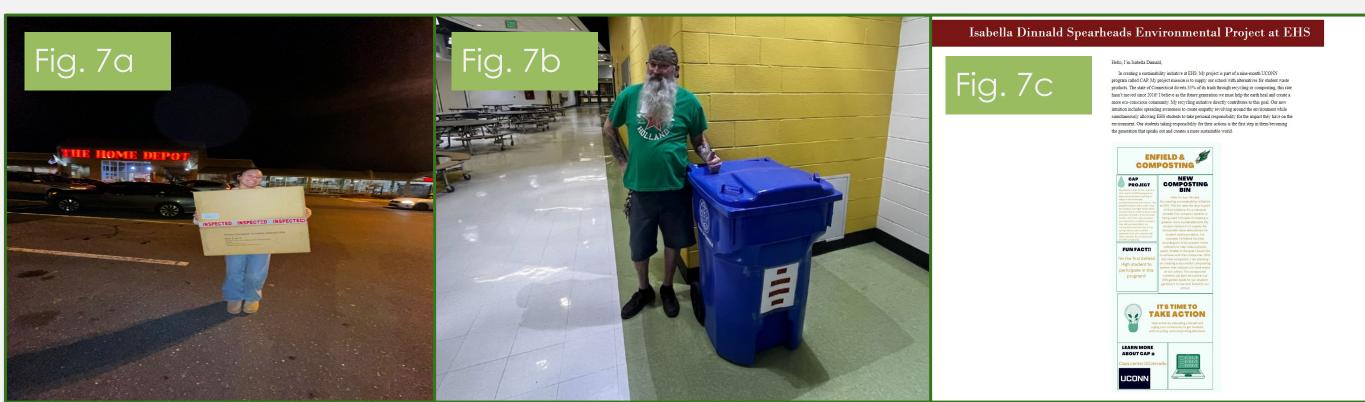


Fig 10: (a) Partnering with local Home Depot to donate composting materials including barrell. (b) Partnering with custodial staff at EHS to install recycling bins. (c) Partnering with EHS administration to promote project to students and families in digital newsletter.

eferences Continued 4. "Teach-in Toolkit." Earth Day, 23 Jan. 2024, www.earthday.org/teach-in-toolkit/ 5. Hlushko, Maryna. "Compost Life Circle Infographic. Composting Process Stock Vector - Illustration of Household, Environmental: 240890517." Dreamstime, 7 Feb. 2022, www.dreamstime.com/compost-life-circle-infographic-composting-process-schema-recycling-organic-waste-collecting-kitchen-scraps-to-use-image240890517

• Earth Day 2024 Celebration District Wide to promote Awareness and Sustainability needs through literacy and Teach In

EHS Composting Weekly Tracker

o keep track of the food waste that is added to our composter and who is naging the compost every week! This helps the school measure the amount of

| ates | Name of Compost Manager Isabella Dinnald | | Signature/Initials ID | | | |
|------------------------------------|--|-------------|---|----------------------------|-----|--------|
| | | | | | | Are |
| | | | | | | COI |
| ates | Weight of Food Waste Collected (Pounds/Lbs.) | Notes | | | | |
| xample: onday anuary 1, 2024 | Example: 5.4 lbs. | collected f | Example: We added dry leaves collected from the school lawn to our compost today! | | | |
| uesday | | | | | | |
| /ednesday | | 1 | | Fig. 6: Mate demonstrat | | |
| hursday | | | | co | nti | nue th |
| riday | | | | | | |
| leekly Total | | | | | 1 | |

Conclusion and Next Steps

- As Enfield High School administration plans on continuing the new recycling and composting program for future students, my project will last for years to come. In addition, it has resulted in Earth Day Celebrations becoming an annual component of our schools specifically focused on our plastic waste and recycling. These earth day celebrations directly correlate with spreading awareness about how we affect our environment with our plastic waste (specific to Connecticut) (Fig. 8).
- As a member of both the Sustainability Club and Gardening Club, I plan to continue working with administration and students to keep the composting and recycling system going. In addition, I hope to create more awareness and outreach in the following years through environmental initiatives to increase people's everyday use of the recycling and compost bins.

Acknowledgements

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6. "Food Waste Warriors." WWF, World Wildlife Fund, www.worldwildlife.org/stories/food-waste-warriors. Accessed 24 Jan. 2024. 7. "Earth Guardians." Earth Guardians, www.earthguardians.org/. Accessed 24 Jan. 2024.



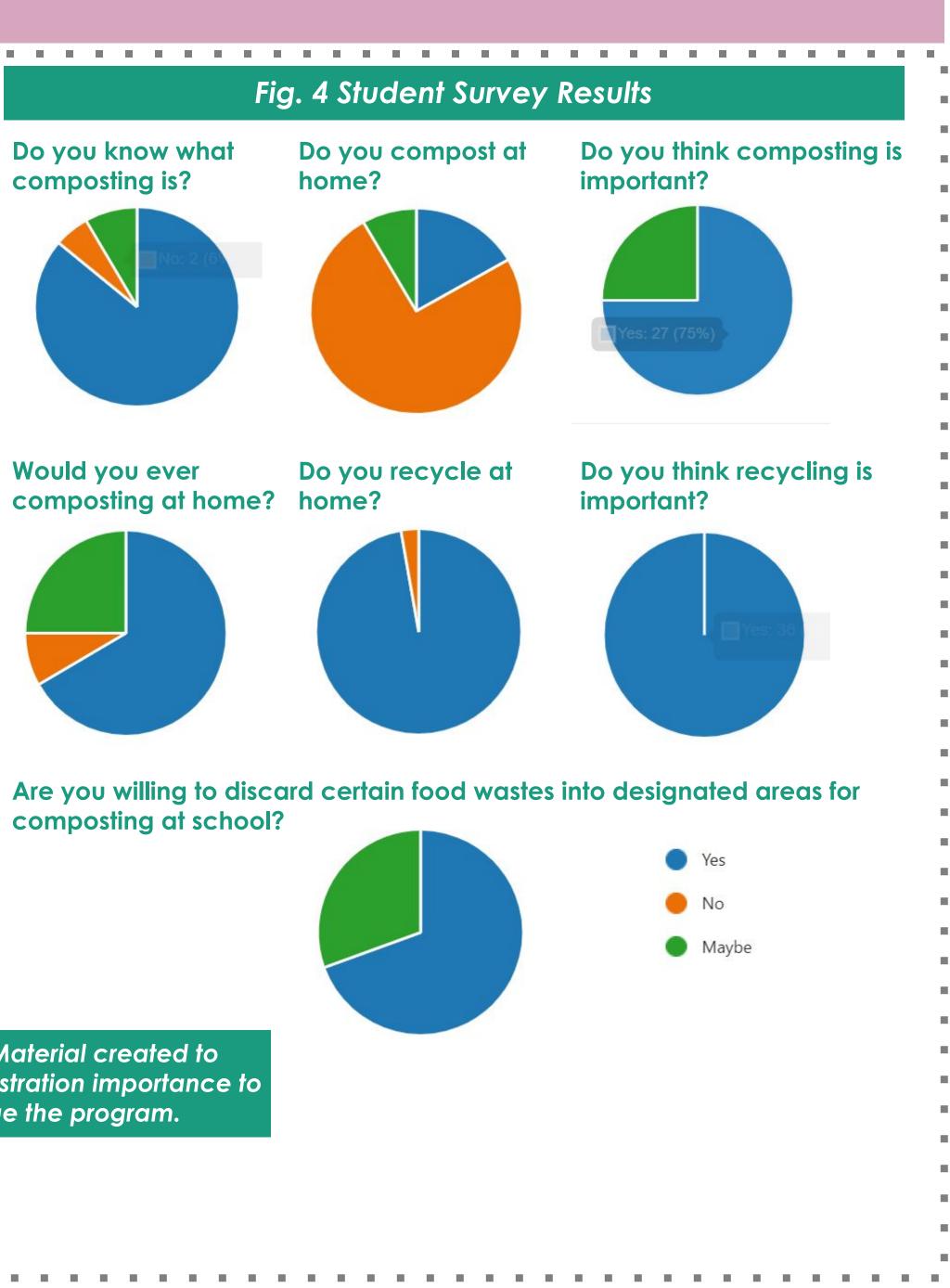




Fig 8: District-wide Poster Promotion