



APPLICATION FOR PARTICIPATION

School Waste Reduction and Composting Program

Maryland State Department of Education

200 West Baltimore Street
Baltimore, Maryland 21201

Deadline

January 13, 2024
No later than 5:00 p.m. EDT

MARYLAND STATE DEPARTMENT OF EDUCATION

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Instructions

1. Complete this application electronically by typing directly into the fillable fields and charts.
2. Do not alter or remove sections.
3. When finished, save the application document as a pdf to your computer and obtain appropriate signatures.
4. The completed Application should be saved as a pdf and sent as an email attachment to Zachary Carey, Director of Science, at zachary.carey@maryland.gov by 5:00 p.m. on January 13, 2024.

Proposal Cover Page

Program Name: Catoctin Composts!

Project Director: Brian Brotherton

Director Phone: 240-236-8157

Director email: brian.brotherton@fcps.org

Organization Name: Catoctin High School

Organization Address: 14745 Sabillasville Road Thurmont, MD 21788

Amount of the request for grant period (July 1, 2023 – June 30, 2024): \$500 - \$8,000

Project Statement

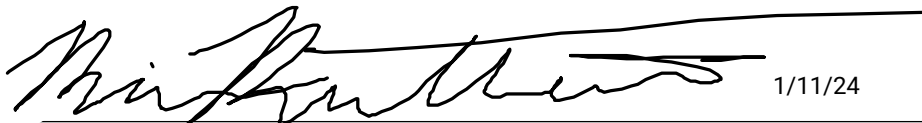
Climate change is indisputable, and humanity is experiencing the repercussions of anthropogenic activities such as pollution, habitat destruction, natural resource mining, release of greenhouse gases and so much more. One problem that Catoctin High School could help combat is the reduction of carbon dioxide through composting. According to Princeton University, composting organic waste, rather than transporting it to a landfill, may reduce carbon dioxide levels by more than 50%. Additionally, composting will reduce the amount of waste sent to landfills and incinerators by more than 30%. Furthermore, compost absorbs carbon from its surrounding environment, as well as nourishes plants, which will continue to use carbon dioxide, for carbon fixation. In addition to the scientific aspect of Catoctin Composts!, this program also demonstrates grassroots movements aimed at impacting change and inspiring others to take action. We hope this will ultimately usher in a global sustainability movement. Composting and waste diversion programs have been successfully implemented at other Frederick County Public Schools, such as Sugarloaf Elementary, which was the pilot Lunch Out of Landfills Program, sponsored by the Rotary Club of Frederick County. Waste diversion data collected from Sugarloaf Elementary showed an 85% diversion rate, according to the Environmental Sustainability Rotary Action Group. Of the 19,002 pounds of trash produced; 9,735 pounds were composted; 2,115 pounds of waste was recycled; and 4,150 pounds of liquids were recovered. Any number of pounds of waste is significant, because it reduces the volume in landfills and helps us to conserve resources. Catoctin Composts! will have positive long-term effects on, not only the Catoctin community, but also our planet.

Brian Brotherton

Catoctin High School Science Department Chair
and Catoctin Conservation Club Advisor

Printed Name of Head of Agency

Title



1/11/24

Signature of Head of Agency

Date

Project Narrative

PROJECT ABSTRACT (250 WORDS)

In the Project Abstract, introduce the project to the reader. The abstract should be factual, brief, and focused on the organization's efforts. Do not assume the reader is familiar with the proposed project. The project abstract should cover the core aspects of the proposed project, such as the populations served, a brief description of the goals, the strategies to meet them, and the roles of the partners.

Catoctin High School is proposing a comprehensive composting and waste diversion program on campus. The proposal includes the allocation of four bins in the cafeteria: composting (for organic compostable matter), trash, recyclables, and liquids. At the end of the lunch periods, uncontaminated recyclables will be put into recycling collection. Compostable waste will be transferred to Key City Compost. Trash will be disposed of properly, according to school routine. During all three lunch shifts, student ambassadors will be present to advise students on the proper disposal of their waste. Additionally, students will have the option to place uneaten food items at a "share-table". The share table will allow for reduction of food waste by allowing students to swap food with their peers, instead of it being tossed away. Moreover, small refrigerators will be provided for storage of perishable items. If uneaten items are not reclaimed, they will be donated to local food banks such as the Emmitsburg and Thurmont Food Banks. This positive course of action will provide more nutritious food to disadvantaged folks in the Emmitsburg and Thurmont communities, who might otherwise not have the access.

EXTENT OF NEED

Describe a clearly defined, data-supported problem, condition, or need to be addressed through the Fiscal Year 2024 School Waste Reduction and Composting grant.

Currently, Catoctin High does not compost or even recycle. Most recycling is contaminated and is thrown into the trash disposal due to the fear of contamination. As of now, Frederick County Public Schools does not fund composting or waste diversion programs; and Catoctin High does not budget for such programs either. A survey conducted in December 2023 shows that Catoctin High School produces more than 123 pounds of cafeteria waste per day. We can greatly reduce the amount of trash that end up in the landfills, which will also decrease FCPS's budget for trash services, and instead invest that money into more sustainable practices. The Fiscal Year 2024 School Waste Reduction and Composting grant will address the above mentioned issues by providing the funding necessary to initiate waste diversion programs by collecting waste and transporting it to their designated locations.

GOALS, MEASURABLE OUTCOMES, AND MILESTONES

Goals

State the overall goals of the project. The goal(s) should address the main problem identified at the beginning of the needs assessment.

Measurable Outcomes

Measurable Outcomes are the anticipated outcomes to be accomplished for each year of the project and must be related to a goal. Outcomes break the long-term goal into steps or address the factors contributing to the problem addressed by the goal. It is imperative that outcomes be established for every target population the project is designed to affect.

Below are some tips for writing outcomes:

- State your outcome in quantifiable terms.
- Outcomes should specify the result of an activity.
- Outcomes should identify the target audience or community being served.
- Objectives need to be realistic and capable of being accomplished within the grant period.

Milestones

Ongoing evaluation is essential to the management of a project. Since goals and outcomes are not evaluated until the end of the year, milestones must be established to measure progress during the year. Milestones should be evaluated during the year, either quarterly or semiannually.

Since milestones are intended to indicate progress towards an outcome, each milestone must be related to a stated outcome. Keep in mind that milestones are indicators of progress and may not use the same measurement tool as the objective to which they are related. A project may take months before there is an impact on clients, or the rate of improvement may level off over time. Milestones should anticipate this and be gauged accordingly. Be sure that milestones are ambitious, yet attainable.

Goal 1:
 Educate Students and Staff on Composting

Activity	Identified Need	Milestone(s)	Expected Outcome(s)
Lunch Shift Composting Challenges	Efficient systems and processes for waste separation and collection/Active student participation	Achieve 25% Reduction in Lunch Shift Food Waste Through Composting and give incentives	Reduced waste with incentive and bring awareness about the environmental impact of waste disposal and importance of composting
Hands-On Composting Day(s)	Collaborate with teachers - Develop educational materials - Encourage Project-Based Learning	Collaborate with teachers to integrate composting topics into lesson plans	Foster positive attitudes toward composting/Enhancing understanding and awareness of composting processes
Create Informational Composting Materials	Using visual aids to enhance understanding/Align composting education with school curriculum	Encourage questions and discussions with the informational materials Use interactive tools like quizzes or polls to reinforce learning	Higher engagement and retention of composting information

Add more rows as necessary.

Goal 2:
 Create a Compost Committee (students)

Activity	Identified Need	Milestone(s)	Expected Outcome(s)
Formation of the Committee	Clear communication channels to reach potential committee members. Find a platform for volunteers to sign up and express interests.	Establish a core group of interested and motivated individuals to form a school composting committee/group	A committed and diverse group of individuals interested in composting
Facilitate a Brainstorm session to set short-term and long-term goals/Committee Meetings	Ensure consistency in goals and plans by ensuring that uniform decisions can be made	Define goals and objectives for the committee	Clear direction and purpose for the committee's activities

Add more rows as necessary.

Goal 3: Monitor and Evaluate Composting Performance

Activity	Identified Need	Milestone(s)	Expected Outcome(s)
Implement Regular Waste Audits	Train a team to conduct waste audits using protocols, set a regular schedule for waste audits (once a week, once a month, etc.	At least 40% of students will have participated in waste sorts and a select few will lead the audits.	There will be more students or staff members knowledgeable about conducting waste audits
Community Feedback	Solicit feedback from school community regarding the performance of the composting programs	Satisfaction and critiques will be accepted by posting surveys on our school platform monthly.	Catocin Composts! will be individualized to accommodate our community through feedback
Compost Quality	Ensure that items going into composting aren't contaminated	Waste ambassadors will verify proper disposal of waste and educate/direct peers to the correct stations.	Items going into the compost bins are compostable to ensure continued partnership with Key City Compost.

Add more rows as necessary.

Prevention

Goal 4: Create an Environmentally Conscious Student Body that is Willing and Able to Participate in Waste Reduction Programs

Activity	Identified Need	Milestone(s)	Expected Outcome(s)
Lessons on Waste Diversion and Reduction	Increase education surrounding the importance of waste diversion and providing food to those in need.	Student-ran lessons will occur during study hall periods to encourage participation.	Increase in student participation and popularity of conservation programs.

Add more rows as necessary.

Goal 5: Diverting the disposal of surplus food items from entering the waste stream.

Activity	Identified Need	Milestone(s)	Expected Outcome(s)
Share Table	Help supply food to Catoctin students in need.	Waste ambassadors will monitor food placed on share table, and compare numbers to unconsumed food in trash.	Reduction in surplus food items entering the waste stream, and increasing food for students in need.
Foodbank Donations	Donate excess food to local foodbanks to aid low-income households.	Communications with local foodbanks will monitor donation amounts, and ensure donations are utilized.	Increase access to perishable foods within local foodbanks, as many donations consists of unperishable food that is low in nutrition.

Add more rows as necessary.

PLAN OF OPERATION, KEY PERSONNEL, AND TIMELINE

Plan of Operation

The Plan of Operation includes the strategies activities that will be implemented to achieve the project’s goals, outcomes, and milestones. Describe a plan of operation that addresses, at a minimum, the key components of the program’s implementation or expansion.

The plan of operation began with a research and planning phase. Student volunteers have been identified and all stakeholders are aware of our goals. Promotion of the program and a 2 week education period are planned before launch, followed by an additional 2 weeks of in cafeteria coaching. Student volunteers will manage both share tables and sorting stations. Foodbank donations will be carried out by staff. Data collection will happen continuously throughout the grant period. Additional stakeholder buy in will occur through professional development and community outreach.

Key Personnel and Timeline

Include a timeline and the key personnel associated with the plan of operation. For key personnel, include the responsibilities, tasks, and FTE percentage of key contributors required for program success. Ensure that all administrative and key personnel responsible for the successful implementation and monitoring of the grant requirements are included. Add more rows, if necessary

Timelines	Strategies	Person Responsible & Tasks	FTE%
January-June	Stakeholder Engagement, Professional Development, Donations	Brian Brotherton	7.5%
January-June	Promotion, Coaching, Data Tracking	Gina Lin	7.5%

EVALUATION AND EVIDENCE OF IMPACT

Describe the plan to evaluate the extent to which the funding has impacted the amount of food waste prevented, diverted, and composted along with the improvement in education of students and staff on environmental best practices related to the management of food waste.

We will measure the impact of our work by comparing our current volume of waste compared to the weights of recyclables, compostables, liquids and trash later on. We will also conduct surveys among student and staff asking about weather Catoctin Composts! helped them to learn more about waste diversion and become environmentally conscious.

Progress will be tracked using a data tracking tool developed by Lunch out of Landfills. Example progress tracking tool can be found here:

<https://docs.google.com/spreadsheets/d/107aUIUU1LIA0xDAvb2Cn2JXhv5rjbRltDexqBgrQ0yo/edit?usp=sharing>

Our current waste is approximately 60% compostable and 100% of that is heading to landfills. We will know we are successful in our goal to compost waste when our compost weights are near 40-50% of our total waste weight.

BUDGET AND BUDGET NARRATIVE

The project’s budget should detail all related project expenses in a separate itemized budget. It should demonstrate the extent to which the budget is reasonable and cost-effective. All costs described in the project narrative should appear in the budget narrative and must have a corresponding entry in the itemized budget for that year. Reviewers should be able to see a clear connection between the project activities and the budget line items. The itemized budget form (C-12-5, Appendix B) can be accessed through the MSDE grants webpage, and a proposed budget must be submitted with the application.

Provide a description of each budget category. For example, under Services, describe the number of staff attending training. If funds are used to hire substitute staff, include amounts. Include FICA/Benefits if applicable. Add more rows to the table, if necessary.

Please provide a detailed description of the requested funds that will be spent by using the categories listed below. Add more rows if needed. An MSDE [Grant Budget Form C-125](#) form must also be completed, signed, and submitted as an appendix.

1. Contracted Services

Line item	Calculation	Requested	In-Kind	Total
Off Site Composting and Pick-up	Monthly Service: \$235 x 6 = \$1410	\$1410	\$0	\$1410

Total for contracted services:		\$1410		\$1410

Using the space below, explain how the costs for contracted services above are necessary, reasonable, and cost-effective.

Key City Compost is a local composting servicer that can provide off-site composting. The school campus doesn't have an area to accommodate waste and building services is opposed to creating that space. This contracted price provides us with a 64 gallon bin and weekly pick-up.

2. Supplies & materials

Line item	Calculation	Requested	In-Kind	Total
5 Gallon 400 Micron EZ-Strainer	5 x \$40 = \$200	\$200	\$0	\$200
Ecosafe 13 Gallon Curbside Caddy	4 x \$50 = \$200	\$200	\$0	\$200
Ecosafe 6 Gallon Bin	3 x \$40 = \$120	\$120	\$0	\$120
8 Gallon Liners/20 Gallon Liners	8 Gallon Liners \$110 + 20 Gallon Liners \$90 x 2	\$290	\$0	\$290
Total supplies & materials:		\$810	\$0	\$810

Using the space below, explain how the costs for supplies & materials above are necessary, reasonable, and cost-effective.

Compostable items need separated into bins so not to be contaminated by trash and recycling. Additionally, liquids need to be strained and not added to compost. We require multiple bins due to the amount of compostable material we generate daily and our plans to have 2 composting stations and service the library where many students eat.

3. Other charges

Line item	Calculation	Requested	In-Kind	Total
Staff time to donate to food bank	2.5 hours a week x \$45 an hour x 20 Weeks = \$2250	\$0	\$2250	\$2250

Total for other charges:		\$0	\$2250	\$2250

Using the space below, explain how the costs for other charges above are necessary, reasonable, and cost-effective.

Our main strategy for diverting waste away from landfills is to donate uneaten food to local foodbanks. Many fresh items go uneaten, including milk, fruit, and vegetables. Any items left at the end of lunch shifts on our share tables will be donated, but because they are fresh, this will need to be done near daily. Mr. Brotherton will be responsible for this task and is donating his time in-kind.

4. Equipment

Line item	Calculation	Requested	In-Kind	Total
Digital Platform Scale	\$100	\$100	\$0	\$100
2.1 Cu. ft. Commercial Refrigerator	\$500	\$500	\$0	\$500
Total for equipment:		\$600	\$0	\$600

Using the space below, explain how the costs for equipment above are necessary, reasonable, and cost-effective.

The digital platform scale is to measure our impact over the course of the grant period. In order to effectively divert edible food from landfills, we need a means to store fresh items to either be shared between lunch shifts, or to donate to local food banks at the end of the day. The refrigerator will go toward achieving that goal.

Total amount requested:

\$2820

General Education Provisions Act (GEPA)

Explain the steps the applicant will take to ensure equitable access to and participation in the project as it is related to the six (6) types of barriers described in the [GEPA](#) (gender, race, national origin, color, disability, and age).

Catoctin High School ensures that all students and staff receive fair treatment and have access to equitable resources and opportunities, regardless of their background. Everyone has access to the same opportunities and the same principles will be applied to Catoctin Composts!. When advertising Catoctin Composts!, we will make certain that all staff members and students are aware of the objectives of the program through communication tactics such as morning announcements, posters, social media, club meetings, Schoology (a learning management system that also provides updates on events) and emails etc. When recruiting student leaders to assist in Catoctin Composts!, everyone will be encouraged to participate, regardless of their knowledge level. Catoctin High School's disabled students program, Learning for Life has demonstrated interest and has assisted the club in collecting pre-compost data. They will continue their involvement in waste diversion in the future.

Appendices

The following Appendices must be included in the proposal for funding, but do not apply to the page limit of the Project Narrative:

Appendix A: A signed [Recipient Assurances page](#)

Appendix B: A signed MSDE [C-1-25 Budget Form](#)