

# Maryland Green Schools Program and Baltimore City Schools



**BALTIMORE CITY**  

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**PUBLIC SCHOOLS**

The logo for Baltimore City Public Schools features the words "BALTIMORE CITY" in a large, gold, serif font. A thin horizontal line is positioned below "BALTIMORE CITY", and the words "PUBLIC SCHOOLS" are written in a smaller, gold, serif font below the line.



Develops and advocates for programs, policies and actions by government, citizens, businesses, and institutions that improve the long-term environmental, social, and economic viability of Baltimore City.

## BALTIMORE CITY --- PUBLIC SCHOOLS

Recognizes the benefits of “green” building and environmental education, which can reduce the environmental impact of facilities, reduce operating costs, and improve student and staff outcomes.

# Baltimore Sustainability Plan

1. Cleanliness
2. Pollution Prevention
3. Resource Conservation
4. Greening
5. Transportation
6. Education & Awareness
7. Green Economy

29 Goals

131 Strategies



# Education & Awareness Goals

1. Turn every school in Baltimore City into a green school
2. Ensure all city youth have access to environmental stewardship programs and information
3. Raise the environmental awareness of the Baltimore community
4. Expand access to informational resources on sustainability



# Baltimore Green Schools Network

Founded in August 2010

## **Purpose:**

To connect and to coordinate ideas and projects in order to build sustainability into how City Schools functions.

## **Method:**

Organizing action teams into a cohesive network of City School administrators, Baltimore City departments, external partners, community members and students.

# City Schools and Greening

Public Page:

[www.baltimorecityschools.org/sustainability](http://www.baltimorecityschools.org/sustainability)

City Schools Inside:

[http://www.baltimorecityschools.org/internal\\_sustainability](http://www.baltimorecityschools.org/internal_sustainability)

The screenshot shows the 'CITY SCHOOLS INSIDE' website interface. At the top, there is a search bar and navigation icons for 'DISTRICT HOME' and 'CALENDAR'. Below this is a dark blue navigation bar with links: HOME, ACTION UPDATE, BULLETIN BOARD, TEACHERS, SCHOOL LEADERS, ALL STAFF, and TEACHER SUPPORT AND DEVELOPMENT. The main content area is titled 'Sustainability' and features a sidebar on the left with a 'Sustainability & Greening' section containing a list of links: Sustainability Policy, 21st Century Schools, Energy Conservation, Every Kid in a Park, Graceland & Holabird - Net Zero Energy Schools, Green Leader Achievement Units (AUs), Green Resources, Green School Award, School Sustainability Ambassador, and Toolkits (with sub-links for Cleaning for Health and Recycling). The main content area includes an illustration of school buildings and a person planting a tree, followed by the heading 'Sustainability & Greening'. The text below explains the meaning of being green, the Green School Award, and provides contact information for Joanna Pi-Sunyer, Green Schools Coordinator.

**CITY SCHOOLS INSIDE**  
INFORMING & ENGAGING BALTIMORE CITY PUBLIC SCHOOLS EMPLOYEES

HOME ACTION UPDATE BULLETIN BOARD TEACHERS SCHOOL LEADERS ALL STAFF TEACHER SUPPORT AND DEVELOPMENT

**Sustainability**

**Sustainability & Greening**

- Sustainability Policy
- 21st Century Schools
- Energy Conservation
- Every Kid in a Park
- Graceland & Holabird - Net Zero Energy Schools
- Green Leader Achievement Units (AUs)
- Green Resources
- Green School Award
- School Sustainability Ambassador
- Toolkits
  - Cleaning for Health
  - Recycling

**Sustainability & Greening**

What does it mean to be green? It means integrating environmental education across the curriculum, using school grounds as extended classrooms, operating our facilities in ways to conserve resources and minimize their environmental impact, and building partnerships with green-minded community organizations. Ultimately, it means raising our students to take care of the earth and their environment—and to be at the forefront of the global push to build a sustainable, green world.

Across City Schools, green projects and programs take place daily. Thirty-one schools have earned the Green School award from the [Maryland Association for Environmental and Outdoor Education](#) - see their wonderful on-line applications [here](#). Many more schools are conducting green programs and activities in their classrooms. And over 100 schools have received grants from the Baltimore Office of Sustainability for student-led greening projects.

These pages aim to foster environmental awareness and practices among staff, students and schools - and to make Baltimore a cleaner, greener place to learn, work and live. You can read stories about green projects in our schools, find resources to help you start a green program, get tools for ongoing efforts like recycling, and see examples of successful green-school applications.

Please also explore the [Sustainability](#) pages on the main district website, and contact [Joanna Pi-Sunyer](#), Green Schools Coordinator, with questions or comments.

# Maryland Association of Environmental and Outdoor Education and Maryland Green Schools

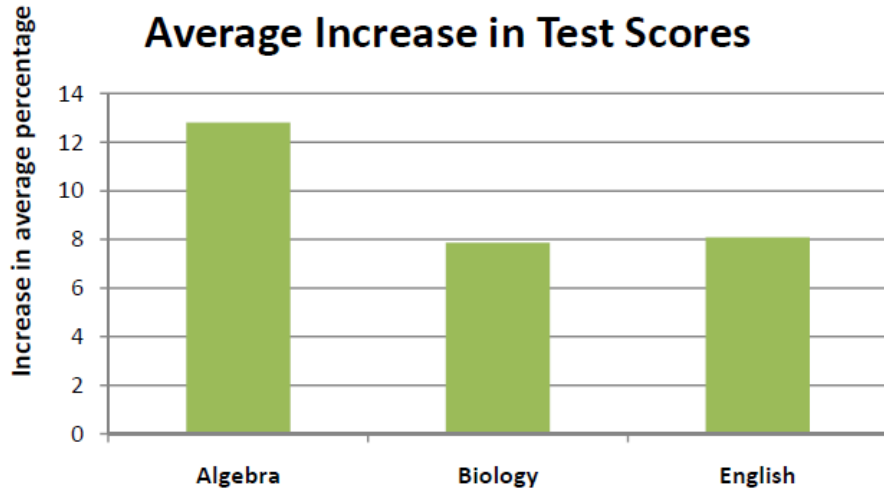


- Founded in 1985, MAEOE is a state-wide nonprofit educational association
- Began MDGS program in 1999
- Strong evidence of academic achievement.



## High School

### Average Increase in Test Scores



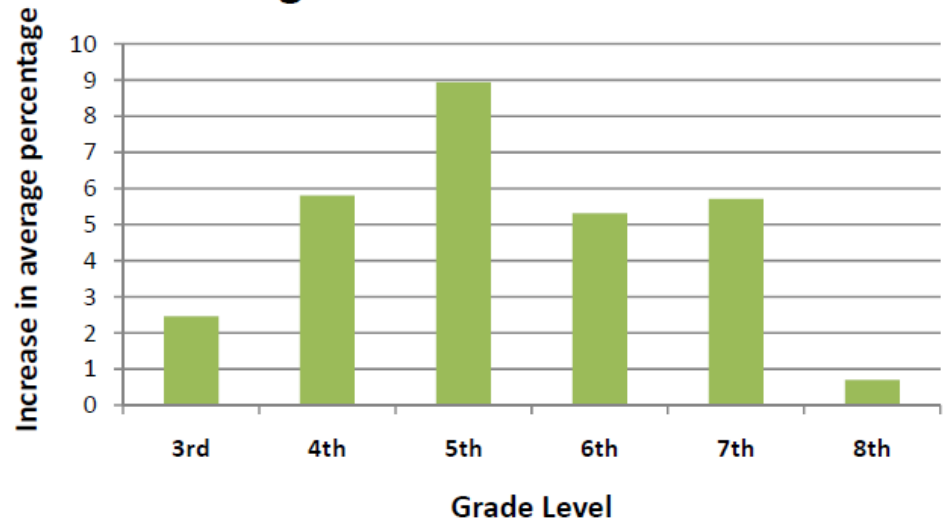
**2010 Report:**  
**Average test scores at MDGS schools increased post-certification**

**Latest study from 2014:**  
**Strong correlation between MD Green School process and improved academic performance**

<http://maeoe.org/statistics/>

## Elementary/Middle

### Average Increase in Test Scores





# Benefits of Environmental Education and Greening

- Emotional, cognitive and physical development for students through hands-on, project based learning.
- Better environment for everybody and can change the community as a whole.



# Benefits of Environmental Education and Greening

## Environmental Literacy and Engagement

- For seniors graduating in 2015 and beyond, students must have received instruction that meets the State Environmental Literacy Standards and the Chesapeake Bay Agreement
  - Includes a Meaningful Watershed Educational Experience (MWEE) in each of elementary, middle, and high school
- Becoming a Green School will give your school a lead on meeting these new requirements and will help ensure that your students are prepared to be stewards of their environment.

# Benefits of Environmental Education and Greening

## Development of a 21<sup>st</sup> Century Workforce

- 43% of sustainability professionals are earning \$75,000 or more per year.
- 62% of respondents said their job has promotion potential, and most would recommend sustainability as a career to their children.
- 35% reported that it's likely their employer will hire, within the next 12 months, someone dedicated to alternative technologies.



Bachelors in Environmental Studies



Doctorate in Environmental  
Science and Technology

**Study!**



Master in City and  
Regional Planning



Masters in Energy Policy and Climate



**BALTIMORE CITY**  
**RECREATION & PARKS**



**Jobs!**



# How are we helping schools become Maryland Green Schools?

- Green, Healthy, Smart Challenge grant program
- Baltimore Energy Challenge grant program
- Promoting youth environmental leadership
- Supporting professional development for teachers

**BALTIMORE CITY**  
**PUBLIC SCHOOLS**



Invest in Baltimore

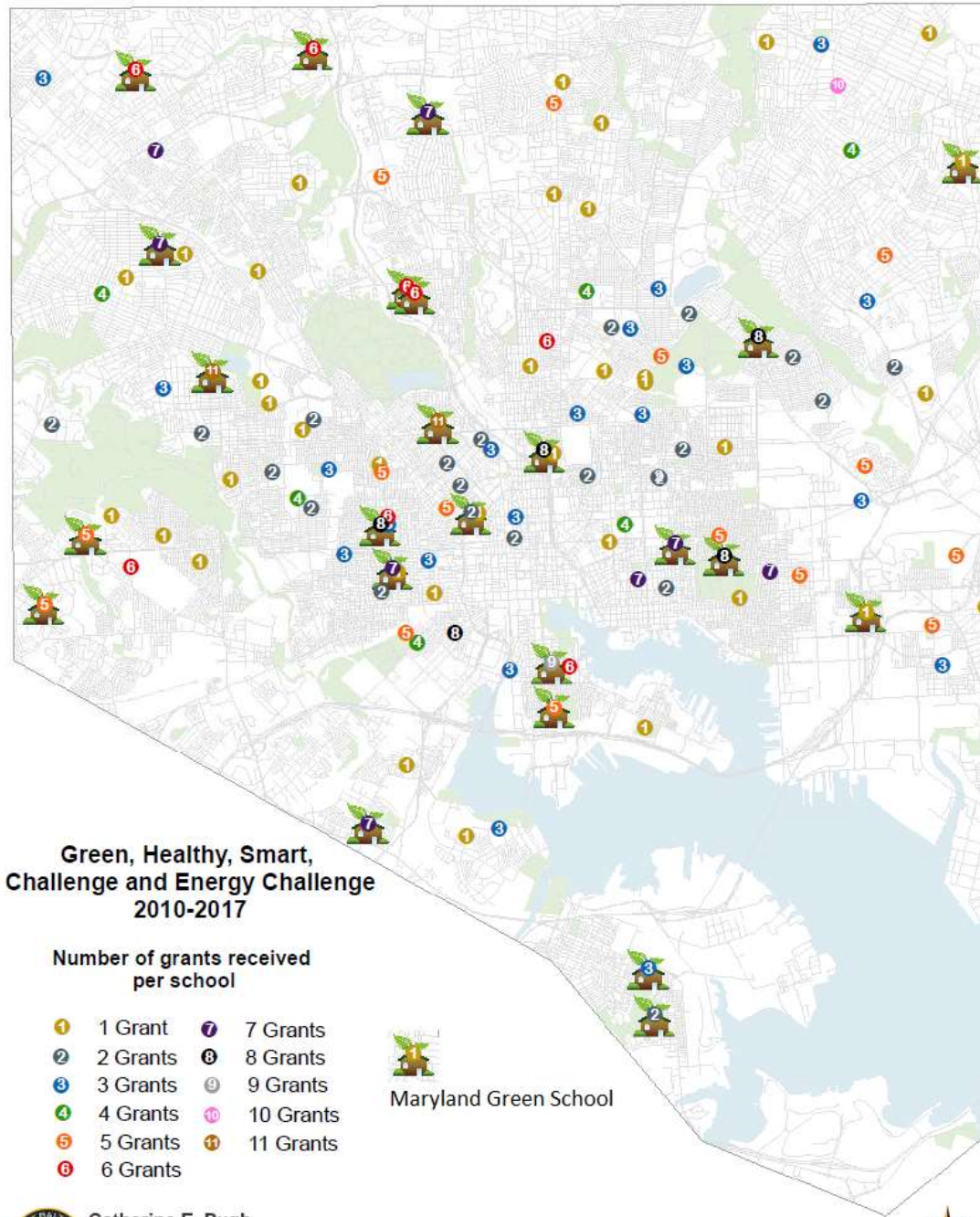
**B C F**

BALTIMORE  
COMMUNITY  
FOUNDATION

# The Green, Healthy, Smart Challenges: Grants up to \$2,500 for youth-led environmental projects at City Schools

- 47 schools received grants in 2017.
- 131 schools have received grants since 2010.
- Projects have included gardens, field trips, energy audits, storm drain murals, mini wind turbines, and more!





Catherine E. Pugh  
Mayor  
Thomas J. Stosur  
Director of Planning



February 2017



# Highlandtown Elem/Middle #237

- Students planted a schoolyard garden to grow food
- Continue a student-run recycling program, chosen as the kick-off site for the 2012 City Schools system-wide recycling initiative
- Held a neighborhood cleanup, performed a litter skit and painted storm drains.



# John Eager Howard Elementary

- Students continue to grow food in outdoor classroom and take field trips to Whitelock Farm
- Green Team created green cleaning products
- Painted storm drains and installed rain barrels



# Youth Environmental Leadership

- 3 high school interns; larger group of student volunteers
- Present to the School Board each year
- Help plan GreenScape every spring
- Helped plan “Green Teams Speak Out” video

<https://vimeo.com/68800599>



Interested?

Contact Andrea Calderón, 667-224-0267  
andrea.calderon@baltimorecity.gov

# GREENSCAPE

celebration for grantees



# Baltimore's Green Schools

Academy for College and Career Exploration  
 Augusta Fells Savage Institute for Visual Arts  
 Baltimore City College

Baltimore Montessori Public Charter  
 Baltimore Polytechnic Institute

## **Benjamin Franklin High**

City Neighbors Charter School  
 Commodore John Rodgers Elementary/Middle  
 Cross Country Elementary/Middle  
 Digital Harbor High

## **Federal Hill Prep Elementary**

Franklin Square Elementary/Middle  
 George W.F. McMechen High  
 Green Street Academy

Hamilton Elementary/Middle

## **Harlem Park Elementary/Middle**

Henderson Hopkins  
 Highlandtown Elem/Middle #215  
 Highlandtown Elem/Middle #237

Hilton Elementary

Independence High

John Eager Howard Elementary

John Ruhrah Elementary/Middle

Lakeland Elementary/Middle  
 Mount Washington Elementary

## **Patterson High**

## **Patterson Park Public Charter**

## **Reginald F. Lewis High**

Roland Park Elementary/Middle  
 The Green School of Baltimore  
 Thomas Jefferson Elementary/Middle  
 Thomas Johnson Elementary/Middle  
 Windsor Hills Elementary/Middle



## Independent schools:

Baltimore Lab

Calvert

Catholic High

## **Friends**

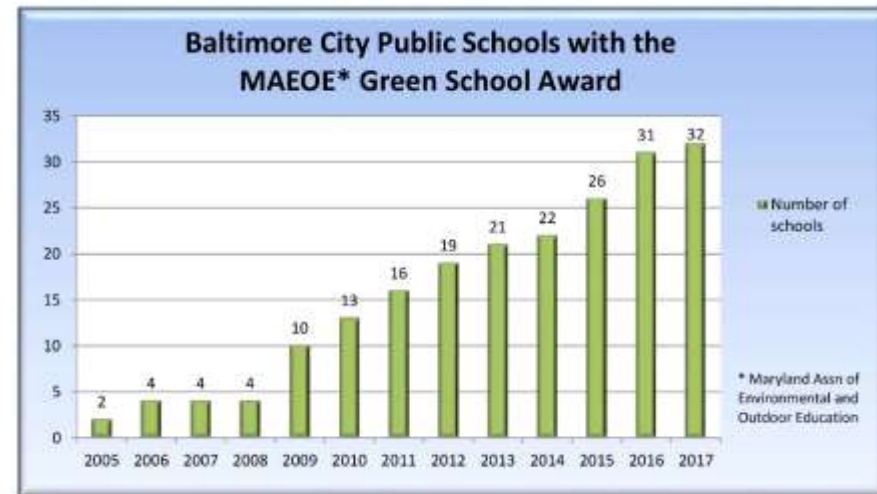
Ohr Chadesh

St. Elizabeth

St. Casimir

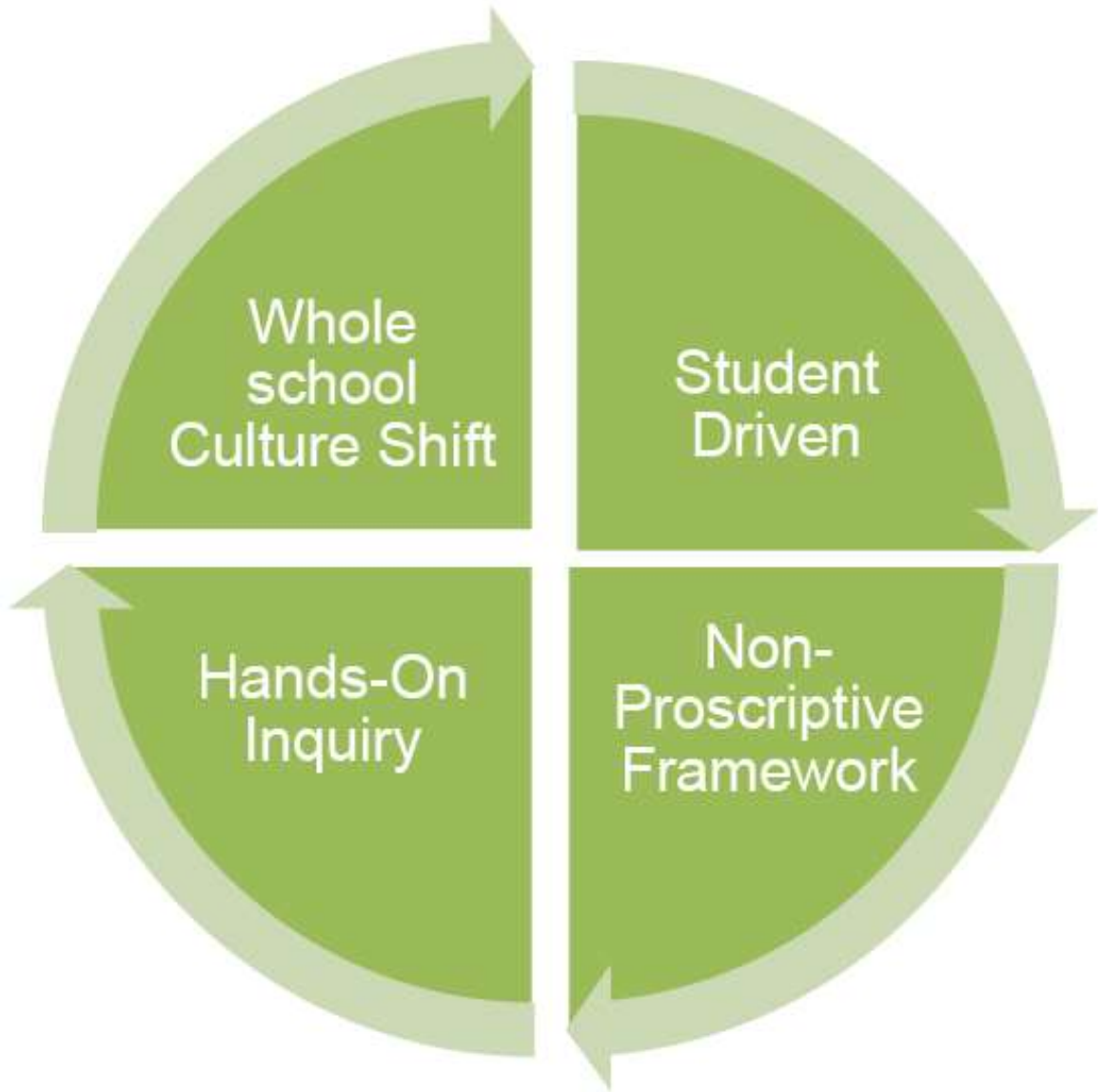
The Bryn Mawr

Waldorf



**Newly certified or recertified in 2017**

# Maryland Green School Award Philosophies



# Maryland Green School Application

new schools – include actions from September 2016-June 2018  
recertifying schools – include actions from September 2015-June 2018

## **Objective 1: Systemic Sustainability**

- Environmental Issue Instruction
- Professional Development
- School-Wide Environmental Behavior Change
- Systemic Partnership
- Celebration

## **Objective 2 : Student-driven Sustainability Practices**

- Water Conservation/ Water Pollution Prevention
- Energy Conservation
- Solid Waste Reduction
- Habitat Restoration
- Structures for Environmental Learning
- Responsible Transportation
- Healthy School Environment



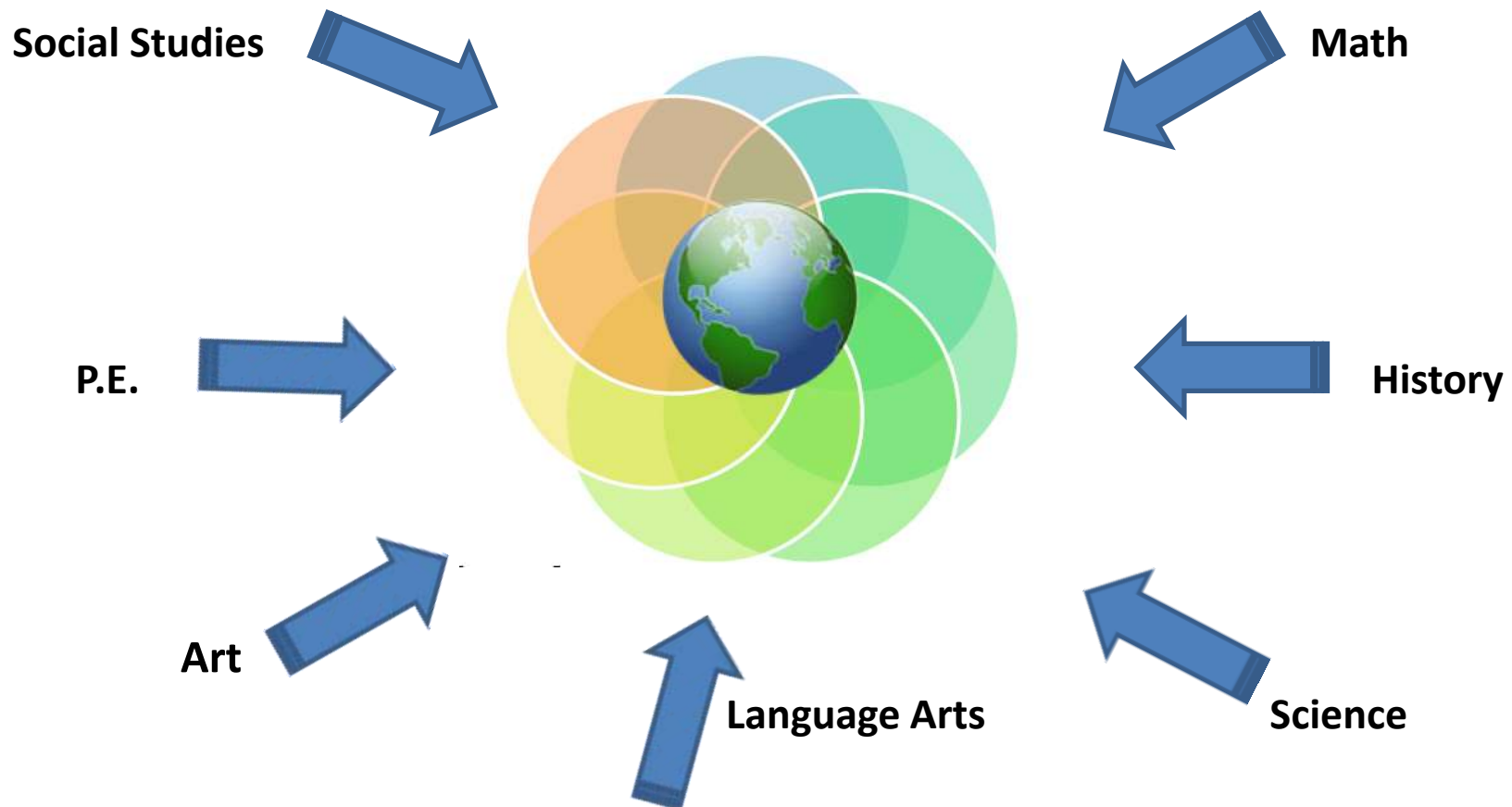
## **Objective 3: Community Partnerships, Awards, and Special Recognition**

- Community Partnerships
- Awards and Special Recognition (optional)

## Objective 1.1:

# Environmental Issue Instruction

**Required:** At least one example of Environmental Issue Instruction per grade level with a brief explanation of how students are using the environment as a context for learning and documentation for each example. Student involvement can be outdoors and classroom environmental investigations.





# Math



# Language Arts



## Objective 1.2:

# Professional Development

How is staff actively preparing themselves to support your school's environmental literacy plan to help fulfill the state's environmental literacy requirement?

### Required:

- All staff is aware of the Green School application process.
- Majority of staff are engaged in EE activities that are affiliated with the school.
- At least 10% of teachers have Environmental Education professional development.

(Information should include dates, length of time, teachers' names, grade levels and number of teachers. Include a brief description & documentation for each entry that meets the requirement.)

### Examples:

- Teachers attending EE workshops such as Project WET, Leave No Trace
- Whole staff presentation on MD Green Schools Program provided by a Green Center or Green Leader
- Lesson modeling in classrooms from Green Centers or other partners
- Staff meeting used as forum to discuss environmentally themed lessons and share environmental/outdoor success stories and share application update.

## Objective 1.3.1:

# Sustainable Schools – School-Wide Environmental Behavior Change

What steps has your school/school system taken to a make your school green?

**Required:** At least one example of **non-student driven** practices.

### Examples:

- Staff using electronic newsletters and implementing polices to reduce paper use.
- Staff utilizing Environmental Resource Libraries
- Task lamps used by all teachers to save energy
- Teachers using green cleaners in classrooms
- Installation of solar panels
- Installation of motion sensitive lights
- Installation of green roof
- Reduction of impervious surface( concrete, black top ) in schoolyard

## Objective 1.3.2:

# Sustainable Schools – Systemic Partnership

How is your school collaborating with its school district to support an aspect of the Green School program?

**Required:** At least one partnership within the school system that supports an aspect of the Maryland Green School Program. This partnership needs to reach beyond your individual school to the “higher” or Central Office level.

## Examples

- School is working with Facilities Maintenance and Operations to install a garden.
- Teacher is participating in the Green Leader AU program.
- School is working with Food and Nutrition Services on salad bar and sharing information about items from Great Kids Farm.
- School is getting utility data from the Energy Manager and educating school about energy conservation.

## Objective 1.4:

# Celebration

How does your school community celebrate being green?

**Required:** At least one school-wide, annual event. A brief description of the celebration, number of students involved, date and documentation needs to be included.

### Examples:

- A green school bulletin board used to showcase green school activities
- Students participate in annual environmental poster contest
- Morning announcements on green topics
- The whole school celebrates Earth Day



## Objective 2:

# *Student-driven Sustainability Practices*

**Required:** 2 actions including documentation from at least 4 of the following 7 categories. **Application will be stronger if you include more than two actions!** Actions need to be student-driven. Each example needs a description of activity, grade level, number of students who participated, date and one piece of documentation. Photo documentation including students or student work is strongly encouraged.

- Water conservation and/or water pollution Prevention
- Energy conservation
- Solid waste reduction
- Habitat restoration
- Structures for environmental learning
- Responsible transportation
- Healthy school environment

# Practice #1 Water Conservation Water Pollution Prevention

## Examples:

- Students plan and plant no mow zones.
- Students install rain barrels.
- Students plant rain gardens.
- Students paint storm drain murals.
- Students remove litter from parks, schoolyards and streams before it reaches local waterways.





# Practice #2

## Energy Conservation

### Examples:

- Students conduct school energy audits.
- Students label light switches throughout school building.
- Students plant trees to shade building and save energy.
- Students form an energy patrol and issue tickets to energy wasters.
- Students read energy saving tips on morning announcements.



# Practice #3

## Solid Waste Reduction

### Examples:

- Students manage a school recycling program.
- Students create posters to remind classrooms what to recycle.
- Students monitor and maintain an outdoor or indoor compost bin.
- Students repurposed used materials into art projects.
- Students pick up litter and sort out recyclables.



# Practice #4

## Habitat Restoration

### Examples:

- Students plant/tend a native plant garden (this includes butterfly or pollinator gardens).
- Students plant native trees or native bay grasses.
- Student build and monitor insect hotels.
- Students install and monitor bird, bat or butterfly boxes.
- Students build oyster reef balls.
- Students create a bird habitat area with food shelter and water sources.



# Practice #5

## Structures for Environmental Learning

### Examples:

- Students work outside regularly in an outdoor classroom (can be fixed or movable).
- Students grow food in gardens at school.
- Students create outdoor artwork for school yard or outdoor classroom.
- Students build and maintain a nature trail around their school.
- Students post interpretive signage on interesting features around school yard (i.e. erosion, decay).
- Students identify native trees or plants in their schoolyard and create a labeled identification trail or scavenger hunt.
- Students regularly engage in educational activities to learn about green building infrastructure resources at their school, such as solar panels and green roofs.



# Practice #6

## Responsible Transportation

### Examples:

- Students analyze school transportation issues/carbon footprint using a school survey.
- Students create a no-idling zone by posting signage and handing out fliers.
- Students run a bike safety program.
- Students routinely go on walking fieldtrips or use public transportation.
- Students participate in Safe Routes to School activities to advocate for safe routes.



# Practice #7

## Healthy School Environment

### Examples:

- Students test and analyze the indoor air quality.
- Students make and use non-toxic cleaning products for classrooms.
- Students test schools drinking water.
- Students grow indoor plants to enhance air quality.
- Students organize a running club or other health club.
- Students grow and eat school garden.
- Students create a mini poster campaign to encourage healthy eating choices.



## Objective 3.1

# Community Partnerships

How is your school collaborating with others to support an aspect of the Green School program?

**Required:** At least one sustained partnership where the partner is active in the school AND one sustained partnership where the school is active in the community. Documentation should include at least one collaboration each year with this partner(s).

### Suggested partners:

- PTA- Parent involvement
- Local Green Centers
- Local green leaders
- Local businesses
- Local garden clubs
- Non-profits like Blue Water Baltimore or Parks and People



## Examples – community is active at the school:



- Parents and the PTA volunteer at the School Science Fair

- Farmers from Real Food Farm or Great Kids Farm help the school with a compost project.

- Baltimore City Master Gardeners help the school design an herb garden.



- A Boy Scout or Girl Scout troop visits the School to help with a tree planting or asphalt removal.

- Blue Water Baltimore teaching a lesson on the Chesapeake Bay before the students clean up a stream.

# Examples – school is active in the community:

- Students volunteer to cleanup a local park.
- Students make planters and donate them to a Senior Citizen Center.
- The School hosts a Community Fair where Environmental and Health providers are featured.
- Students visit local businesses and encourage them to recycle.
- Students visit another school and share what they have learned.



### Objective 3.2:

# Awards and Special Recognition

**Optional:** If school or students in your school have received awards, special recognition or participated in advocacy initiatives supporting the BMP or climate change awareness this can be included. Describe each activity, list grade level, number of students who participated and date. Each activity should include documentation.

### Examples:

- “A” grade on recycling from city.
- Measurable energy savings.
- Writing letters to state or local representatives on environmental issues.
- Students are taking note of national or worldwide environmental issues.

## Intent to Apply

**Required:** this is a form from the MAEOE website and must be submitted in December 16, 2017, along with \$75

## Cover Sheet

**Required:** this is a form from the MAEOE website and must be signed by the school's principal and submitted with (or embedded into) your application

## Brief Summary

**Required:** include a short summary of your green culture and changes your school has made

## Top 5 Accomplishments

**Required:** on your application' home page, or a dedicated page, you must include one-sentence bullets describing the 5 green things of which you are most proud

## Green School Metrics

**Required:** you must complete an on-line form from the MAEOE website detailing your accomplishments, such as pounds of recycling collected, but can leave blank the ones that do not apply to you, and estimate the ones that do. Here it is in [PDF format.](#)

# How to get started...

1. Assemble a Green School Committee at your school.  
Student, teacher, administrator, parent, community partner, and facility personnel.
2. Make a list of what your school has already achieved.
3. Ask all teachers to help collect documentation from **September 2016-June 2018** of lessons, fieldtrips, professional development, celebrations and partnerships that will help meet Green School requirements.

# Document all of the amazing work

- **Photographs of students involvement**
- Lesson plans/student work
- Data charts
- Program agendas
- Faculty meeting agendas
- Certificates
- Blueprints/plans
- Newspaper articles/videos
- Maps

Use the [Show Your Green Side](#) form to help teachers document what they have done. Give the form and documentation to your school's application coordinator.

and/or

Using OneDrive, DropBox, or Google Docs, the Committee creates folders for each section of the Green School application and teachers submit their documents electronically.

# Green School Application

- Website-based application is strongly encouraged.
- Creates a terrific document of your school's green work that can be used for other grant applications.

## **SAMPLE APPLICATIONS:**

[City College](#) (Weebly)

[Benjamin Franklin High School](#) (PPT)

[Patterson Park Public Charter](#) (Google Slides)

Links to additional MAEOE applications:

<http://www.baltimorecityschools.org/Page/29926>



And for further resources, check out the...

## Resource Guide for Going Green in City Schools!

[http://www.baltimorecityschools.org/cms/lib/MD01001351/Centricity/Domain/9104/ResourceGuideForGoingGreen\\_CitySchools\\_2014.pdf](http://www.baltimorecityschools.org/cms/lib/MD01001351/Centricity/Domain/9104/ResourceGuideForGoingGreen_CitySchools_2014.pdf)

Located on *City Schools Inside*

[http://www.baltimorecityschools.org/internal\\_sustainability](http://www.baltimorecityschools.org/internal_sustainability)



**Resource Guide  
for GOING GREEN  
in CITY SCHOOLS**

*Presented by the Baltimore Green Schools Network*





# Contact information

## City Schools

### **Green Schools Coordinator**

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### **Energy Specialist**

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443-642-4670

## City Office of Sustainability

### **Environmental Planner**

Abby Cocke

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410-396-1670

### **Youth Sustainability Coordinator**

Andrea Calderón

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667-224-0267

## Baltimore Energy Challenge

### **Director**

Becca Bakre

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