Green Schools supporting Sustainable Communities

Laura Johnson Collard

MAEOE

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MAEOE

Maryland Association for Environmental & Outdoor Education

UNIVERSITY OF MARYLAND 18 56
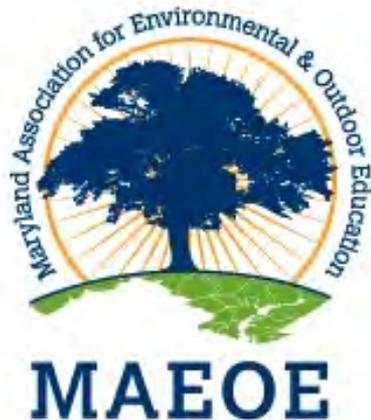
ENVIRONMENTAL FINANCE CENTER

Sustainable Maryland

- Free & Voluntary program for communities that want to go green and save green!

- We help communities
  - choose a direction for their sustainability efforts
  - Improve access to resources
  - Measure their progress
  - Share success with other communities

Actions for Sustainable Communities:

To become Sustainable Maryland Certified, municipalities must complete and document actions from the list below. To achieve certification, municipalities will need to complete actions worth **a total of 150 points**, including **two Mandatory Actions (M)** and **two of six Priority Actions (P)**, and submit the appropriate documents as evidence that the requirements have been satisfied.

ACTION ITEM	POINTS
COMMUNITY ACTION	
Green Team	
Partici... ...m Training	5
...	10 M
...te a Green Team Ac...	10 M
...nduct Community Barriers an... ...ts Assessment	15
...Build SMC Resource Center	5
Participation in MD Green Schools	10
Innovative Demonstration Projects	5 to 20
COMMUNITY-BASED FOOD S...EM	
...ocal Food Consumption	
...ocal Food Fair	10
...Food Consumption & P... ...n Classes	5 per class
...Local Farmers ...	15
...	5
Local Food...	
Community Gardens	15 P
Spring Transplant Sale	10
Fall Transplant Sale	10
Establish CSA Drop-off Location	10
Innovative Demonstration Projects	
ENERGY	
Municipal Energy Audits	10 (1st bldg), 5 ... P
Residential Energy Efficiency	5
Wind Energy Project	10
Innovative Demonstration Projects	5 to 20
GREENHOUSE GAS	
Municipal Carbon Footprint (pre-requisite)	15 P
Community Carbon Footprint (pre-requisite)	15
Climate Planning	
Climate Action Plan	10 to 25+
Climate Change Adaptation Element	5
Innovative Demonstration Projects	5 to 20
HEALTH & WELLNESS	
Let's Move	15
Workplace Wellness	
Join Healthiest Maryland Businesses	5
Workplace Wellness Program	5 to 15
Living Well Program	5 per class
Innovative Demonstration Projects	5 to 20
LOCAL ECONOMIES	
Buy Local	
Establish Local Business Directory	10
Promote Local Business Directory	5
Buy Local Campaign	15
Local Business Roundtable	5 per roundtable
Local Business Procurement Notices	10
Economic Analysis of Procurement Practices	15
Local Purchasing Preference Policy	20
Green Business Recognition	
Join Maryland Green Registry	5
Promote Maryland Green Registry	5 points per 2 businesses

ACTION ITEM	POINTS
LOCAL ECONOMIES (CONTINUED)	
Green Business Certification Program	15
Green Purchasing	
Green Purchasing Policy (pre-requisite)	15 P
Evaluate Current Purchasing Practices (pre-requisite)	10
Vendor Preference Statement (pre-requisite)	10
Purchase Recycled Products	10
Purchase Environmentally Preferable Products	10
Implement Waste Reduction Program	10
Innovative Demonstration Projects	5 to 20
NATURAL RESOURCES	
Watershed Stewardship	
Implement Watershed Stewardship/Pollution Prevention Outreach Program(s)	10
Facilitate Engagement in Existing Watershed Stewardship Opportunities	5 per event
Provide Voluntary Opportunities for Citizen Engagement in Watershed Stewardship	10
Provide Incentives for Watershed Stewardship on Private Lands	15
Create a Watershed Plan	20 P
Stormwater Management	
Stormwater Management Program	15 P
Stormwater Manager/Coordinator	15
Stormwater Fee Structure	20
Septic Management	
Septics System Assessment and Inventory	15
Septics System Management Plan	20
Dedicated Septic System Fund	20
Water Conservation	
Develop a Water Conservation Plan	15
Develop a Water Conservation Outreach Program	10
Tree City USA	15
Pet Waste	
Implement a Pet Waste Education Program	5
Develop a Pet Waste Program	5
Adopt a Pet Waste Ordinance	5
Innovative Demonstration Projects	5 to 20
PLANNING AND LAND USE	
Participation in DHCD Sustainable Communities	20
Housing and the Comprehensive Plan	10
Land Preservation	
Conduct Easement Outreach that Encourages Inspection, Evaluation, and Stewardship	15
Build Easement Inventory	10
Innovative Demonstration Projects	5 to 20

P denotes Priority Action   M denotes Mandatory Action

To learn more visit
www.sustainablemaryland.com

EFC Environmental Finance Center
www.efc.umd.edu

Maryland Green Schools Program

Environmental Literacy

Students who are environmentally literate possess the **knowledge, intellectual skills, attitudes, experience, and motivation** to make and act upon responsible environmental decisions as individuals and members of their communities.

Environmental Education Vision

1. Every student graduate from high school environmentally literate
2. Environmental literacy in Maryland includes both in-school and unstructured experiences for varied audiences

Driven by: **Chesapeake Bay Watershed Agreement**

- Goal: Environmental Literacy
    - Enable students in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed.

1. Student Outcome (MWEE)
- Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school

2. Sustainable Schools
- Increase the number of schools in the region that reduce the impact of their buildings and grounds and local watershed

Environmental Education Vision

1. Every student graduate from high school environmentally literate
2. Environmental literacy in Maryland includes both in-school and unstructured experiences for varied audiences

Driven by:

- **Chesapeake Bay Watershed Agreement (continued)**

    3. Environmental Literacy Planning

    - Develop a comprehensive and systemic approach to environmental literacy for all students in the region: policies, practices, and voluntary metrics

- **Code of Maryland Regulation 13A.04.17**
    - Comprehensive multidisciplinary program of environmental education in every school system
    - Aligned with the Maryland Environmental Literacy Curriculum

PROGRAM BENEFITS

- Academic achievement

- Interaction with Nature

- Health effects on Social, Emotional, Cognitive and Physical Development

- Development of a 21st Century Workforce

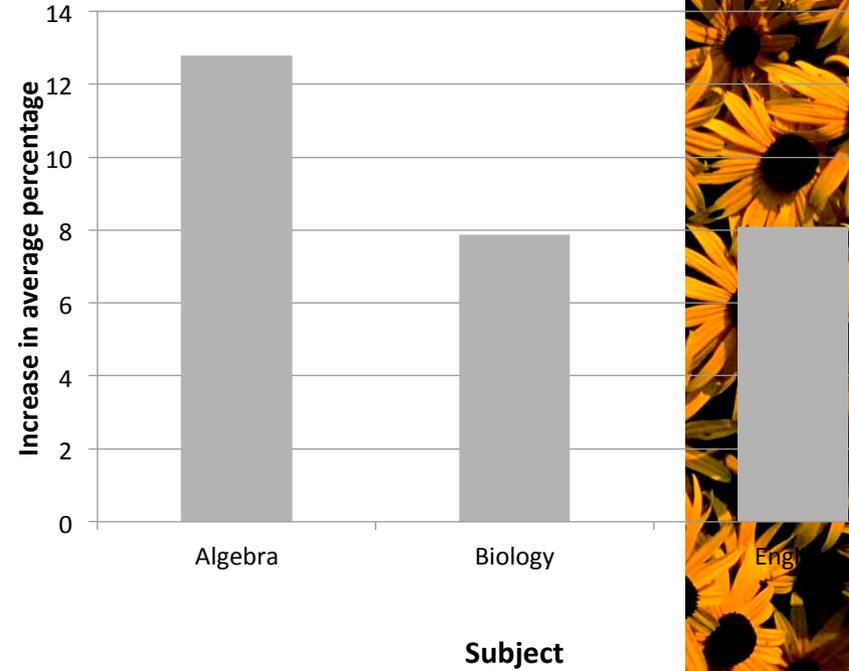- Importance of Environmental Literacy and Engagement

- Stewardship

Photo Courtesy of Michelle Manley

Academic Achievement

Average Increase in Elementary Test Scores
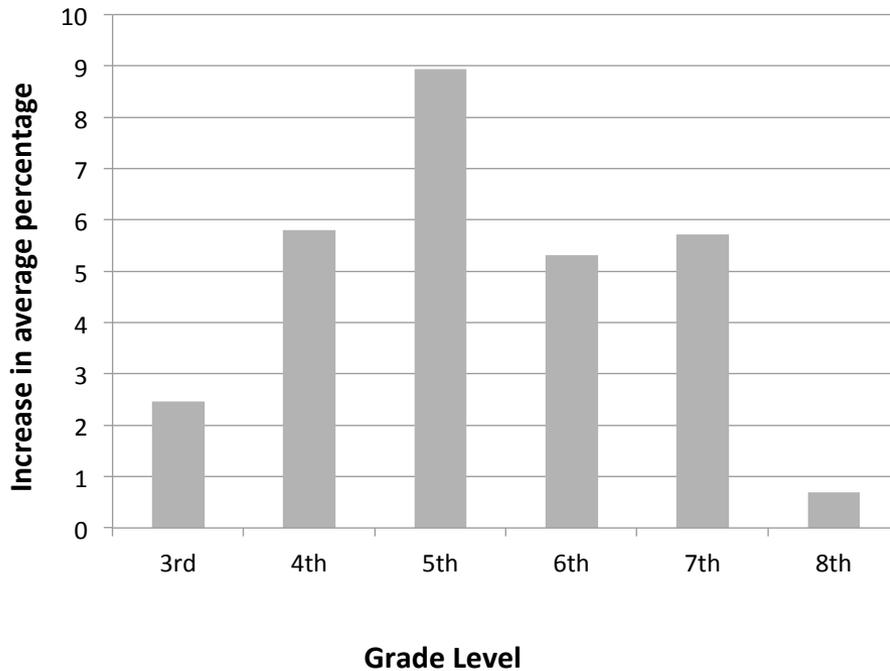
Average Increase in High School Test Scores

Haines, S, Towson University, 2010

PROGRAM Benefits Cont.

More Reasons ...

- Statewide recognition
- School distinction
- Marketing, Public Relations
- Operating Cost Savings:
Lower Energy/Water/Waste
disposal bills
- Can connect to other state/county requirements
 - STEM, Next Gen Science, C3, College Career Ready, E-Lit

Creating future Environmental Leaders

Sustainable Green School Practices

Sustainable Practice	2014-2015	2015-2016
Water Conserved (gal)	685161	36089842
Rain Garden/Bio-retention area planted (ft2)	77365	93528
Stream Bank Planting (ft^2)	97087	23762318
Stream Cleaning (ft)	8796	39357
Energy Use Reduction (kwh)	4370011	8780183
Green Energy Used (kwh)		4780032
Composting (Number of Schools)	79	77
Recycled Materials (lbs)	2692395	6516317
Created Native Habitat (ft^2)	13112012	801318
Created/installed bird houses		1142
Native Plants (shrubs and trees)	5302	11267
Invasive Plant Removal (ft^2)	205051	571882
Outdoor Classroom		185
Outdoor Environmental Art		409
No-idling Zone	35	35
Plants for indoor air quality		2703
Edible Garden (ft^2)	16166	13674
Outdoor running events and environmental festivals		658

Percent of Public Green Schools by County
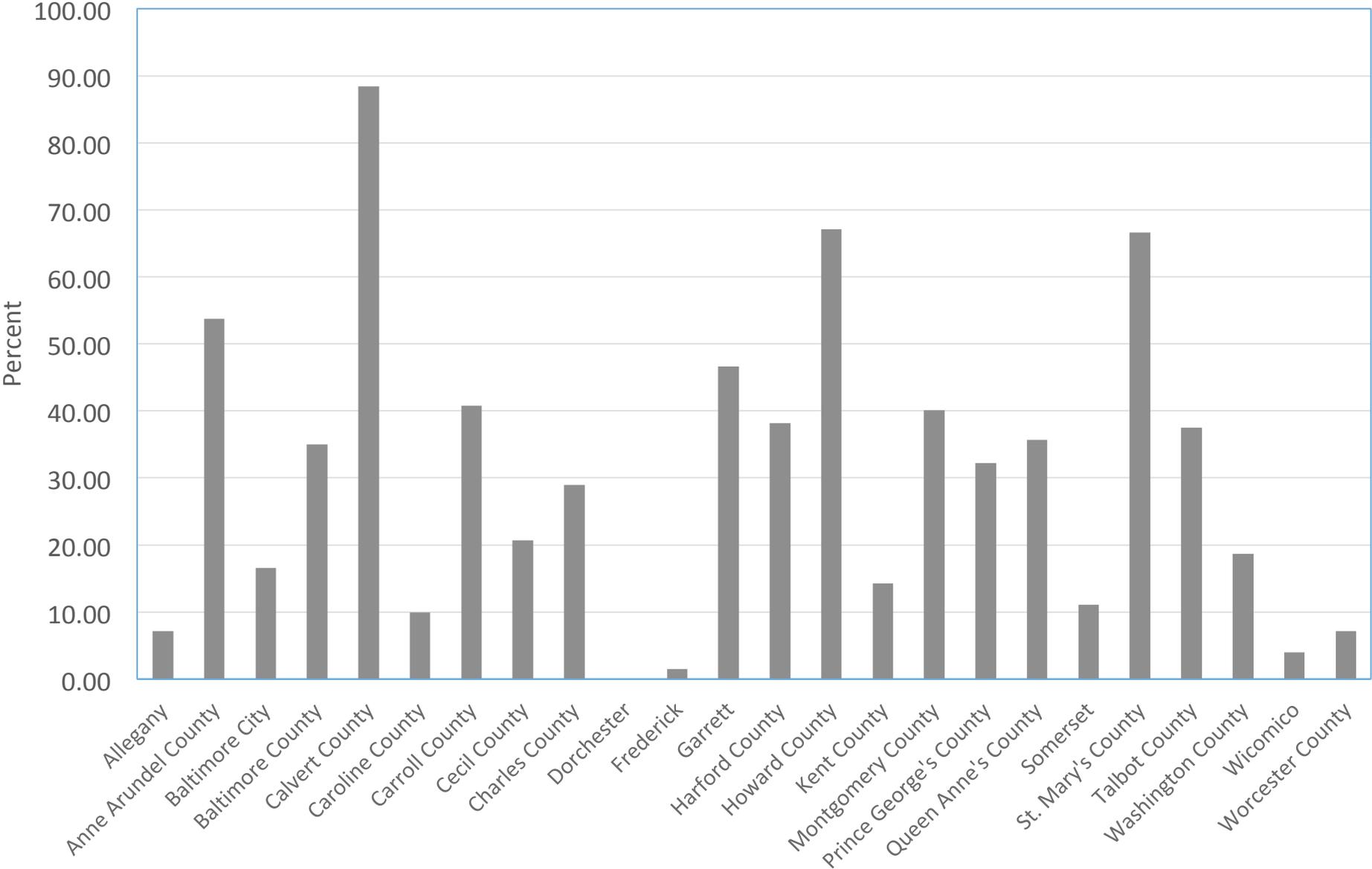
Sustainable Schools

Besides including basic demographic details, include:

1. Illustrate how your school is representative of a Sustainable Maryland Green School.

2. Explain how your school and its community has built and embraced the "Green" culture over the 14 years of the Maryland Green School application process.

3. Highlight your achievements and how you maintained your award throughout the 14 years.

4. Brief Goal Summary: In your application, please describe your green school goals for 4 years, 8 years, and 12 years. Include:
   a. Plans to make the successful
   b. People who are involved
   c. Outcomes you expect from the goals

1. Curriculum and Instruction

      1.1. Environmental Issue Instruction

      1.2. Professional Development

      1.3. School-Wide Environmental Behavior Changes (not required)

      1.4. Celebration

2. *Student-driven Sustainable Practices* (Choose 4)

      2.1. Water Conservation/Pollution Prevention

      2.2. Energy Conservation

      2.3. Solid Waste Reduction

      2.4. Habitat Restoration

      2.5. Structures for Environmental Learning

      2.6. Responsible Transportation

      2.7. Healthy School Environment

3. Community Partnerships, Awards, and Special Recognition:

      3.1. Community Partnerships

      3.2 Systemic Partnerships

      3.2. Awards and Recognition (not required)

1.2. Professional Development

1.2.1. All staff is aware of the Green School application process

* Staff meeting agenda includes Green School
  application update
* Whole staff presentation on Maryland Green Schools
  Program provided by a Green Center/Green Leader

Full staff meeting - Monday, September 29th agenda

Tammy Goldeisen

To: MVMSStaff

Tuesday, September 23, 2014 4:21 PM

Below is the agenda for our **full staff meeting on Monday, September 29th at 2:30** in the cafeteria. I am
looking forward to seeing all of you together again :)

1. River analogy - Williams
2. Continuous Improvement
3. Rigor
4. Custodial information
5. Brightest Bulb award - Parson
6. Chris Mayne
7. Virgin Health Miles information - Cutsail
8. Online Planning resource - Lagreca
9. Green School Application Update - Mako
10. Open

1.2. Professional Development

1.2.2. At least 10% of teachers have participated
in EE PD

Information should include dates, length of time, teachers' names, grade levels, and numbers of teachers.

- MAEOE Conference

- Environmental education workshops. For example:
  - Project WET, Chesapeake Classrooms, POW!, Master Naturalist, Project Learning Tree, Food, Land and People, Chesapeake Bay Foundation Professional Development, etc). *Find more examples on the MAEOE Professional Development Calendar or talk to your local Green Center.*

- Lesson modeling in classrooms from Green Centers or other partners

- Environmental speakers presenting at staff meetings or workshops (NOT at school wide assemblies with students)

- Environmental Education focused webinars

- MADE CLEAR Climate Change Workshops for Teachers

1.3. School-Wide Environmental Behavior Changes

- *Optional*

- NON-STUDENT driven Sustainable Practices

- Examples:
    - Installation of energy efficient lighting
    - Staff carpooling or public transportation incentive program
    - Reduction of impervious surfaces (blacktop, concrete) in the schoolyard
    - Teachers using green cleaners in classrooms
    - Installation of solar panels

1.4. Celebration

* *School wide appreciation of the efforts and achievements of teachers and students*
* *Public events that involve the school and community*
* *The school shows off its sustainable activities*

2. Sustainable Practices:
Creating Stewards of the Environment

- **Water Conservation/Pollution Prevention**

- **Energy Conservation**

- **Solid Waste Reduction**

- **Habitat Restoration**

- **Outdoor Structures for Learning**

- **Responsible Transportation**

- **Healthy School Environment**

Student Involvement Required!

Choose 4 of 7- 2 in each category

2.1. Water Conservation/ Pollution Prevention

- Rain gardens and other erosion control measures

- Storm drain stenciling

- Students install, paint and/or use rain barrels

- Students do a litter clean-up and learn about protecting the waterways

- Students conduct erosion control projects such as installing riparian buffer zones and planting trees

2.2 Energy Conservation

- Student-made reminders to turn off the lights and devices

- Student classroom jobs help turn off lights and computers

- Students calculate the school's carbon footprint, take action to reduce that footprint

- Students promote actions to reduce 'phantom' energy loss

- Students plant trees to shade the building
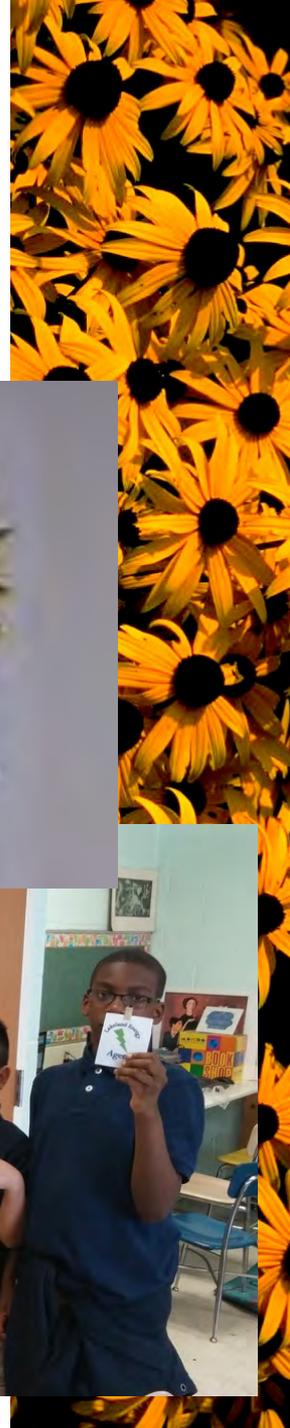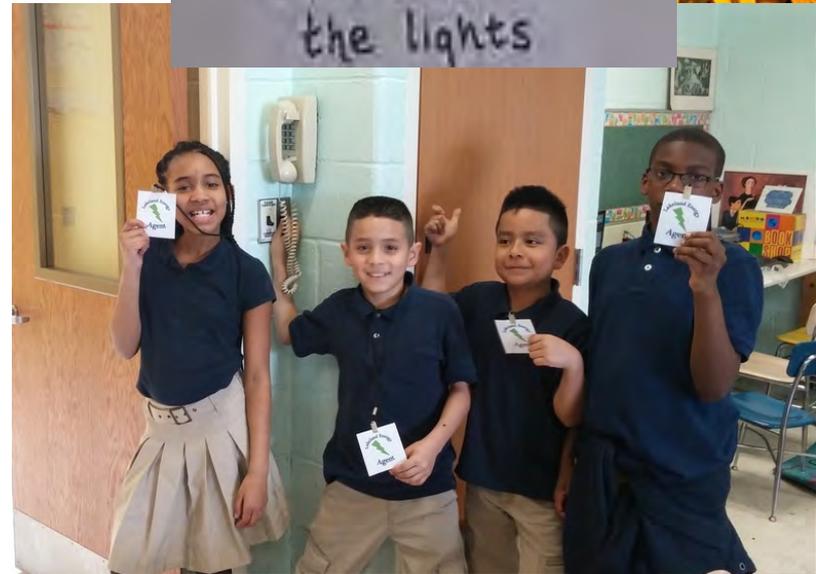
2.3 **Solid** Waste **Reduction**

- Students organize a recycling drive for ink cartridges, old cell phones, etc

- Students help set up outdoor composting

- Students plan an indoor or outdoor clean-up day

- Students create labels for recycling stations

- Students participate in no-waste lunch days

2.4 Habitat Restoration

* Students plant native trees/ shrubs/perennials

* Students install bird, butterfly, or bat boxes

* Students help remove turf or impervious paving

* Students construct brush piles or natural decomposing areas

Invite local business/watershed organizations to join in and help!

2.5 Structures for Environmental Learning
Students use structures for environmental learning regularly

* Students make interpretation signs for bird, bat, and butterfly boxes
* Students plan and using Outdoor Classrooms
* Students create native Maryland tree ID tags
* Students create outdoor art: sculptures, murals

2.6 Responsible Transportation

- Students plan carpooling programs

- Students create signage for no-idle zones

- Students analyze school transportation issues /carbon footprint using [schoolyard report card](#)

- Students routinely go on walking field trips or use public transportation

- Students attend the annual "Walk to School" day

2.7 Healthy School Environment

- Students promote the use of indoor plants
- Students create or promote natural products
- Students participate in healthy local foods programs
- Students organize an outdoor running or other health club that **utilizes the school grounds and encourages the students to spend time outdoors**.

3.1 Community Partnerships

Parents and PTA ● MD Green Centers ● MD Green Leaders ●

Forestry Board● Chesapeake Bay Trust ● MD DNR, MDE, MSDE

Colleges and Universities ● UMD Cooperative Extension ● Local

garden clubs ● Local businesses and organizations ● Federal

agencies

One sustainable partnership where the school is active in the community

One sustainable partnership where the community is active in the school

Examples of Community Partnership

- A campus cleanup day, advertised to the community, with the local waste management agency

- Bringing in a county recycling coordinator to speak to the staff

- Working with a Master Gardener to design a habitat

- Working with MD DNR on a grant to install a stream buffer

3.2 Systemic Partnership

Demonstrate 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: Food and Nutrition Services ● Health Education ●

Health Services ● Physical Facilities ●

School System Outdoor Education Department

3.2 Systemic Partnership Example

Baltimore City Public Schools: Food and Nutrition Services (FNS)

FNS strives to advance student wellness and sustainability by promoting high-quality, nutritious, and when feasible, local food to all students. We are a resource for the most up-to-date information regarding alternative breakfast programs, salad bars, snack and supper meals, and summer meal programs.

www.baltimorecityschools.org/Page/24473
Elizabeth Marchetta, Manager, Food and Nutrition Services, Baltimore City Public Schools
emarchetta@bcps.k12.md.us

School Meals @aacpscuisine · 19h
Celebrating all week @AACountySchools!

MD Farm to School @MDFarm2School
Can't get any fresher than local! Check out the list of #Maryland farms. @aacpscuisine is rocking with local! @MDsBest, @MdAgDept
twitter.com/aacpscuisine/s…

3.2 Awards and Special Recognition

- *Optional Section*
- Examples:
  - "A" grade on recycling from the county
  - Measureable energy savings
 - LEED certified building
  - Eco-schools silver award

Partnership/Resource I: Green Centers

Partnership/Resource II: Green Leaders

Who are MAEOE Green Leaders?
Volunteers who provide outreach and support
to the growing number of schools
throughout the state who are interested in becoming
certified Maryland Green Schools.

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                    │  Maryland Green  │
            ──────► │     Leaders      │ ◄──────
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  │  MAEOE   │ ◄────► │ Maryland Green │ ◄────► │Maryland Green│
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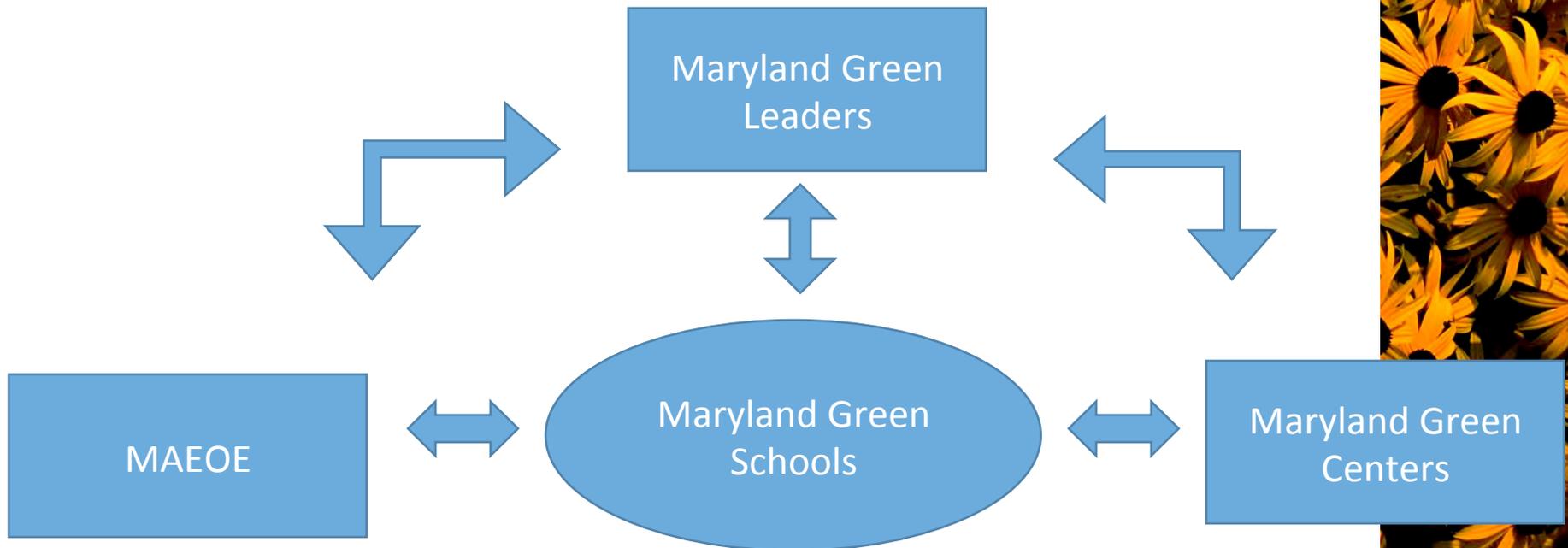
What does a Green Leader do?

Introduce schools to the program
Mentor and guide schools
Keep up to date on program and resources
Participates in MAEOE events

Interested in working with more schools?

Contact your local school.

Principals, Science Chairs and/or PTAs.

Describe the green school program, your experience and interests.

Talk to your local Green Center.

Let them know your availability and interests.

Partnership/Resource III:
Eco-Schools/MDGS Partnership
Greening Sustainable Schools Collaboratively

- Additional resources, webinars and workshops for schools
- Tiered award: Bronze, Silver, Green
  - Steps to Success
- Dashboard/Metrics
- Ability to collaborate with schools in other states and internationally
- Additional Opportunities for funding of individual school projects
- Increased Coverage in environmental news and social media for the school
- Keep your model sustainable via the 14 year MD Green School Program

Eco-Schools/MDGS Partnership

- Achieve the Bronze or Silver Award as a beginning step towards MDGS Award
- Use the Eco-Schools Dashboard to view school metrics and connect with schools throughout the world
- All MD Green Schools are eligible to be a Green Flag Eco-School:
  - Must do the Energy Sustainable Practice
  - Must have a site visit from the NWF representative
- For questions please contact Holly Shields at ShieldsH@nwf.org

Website Resources

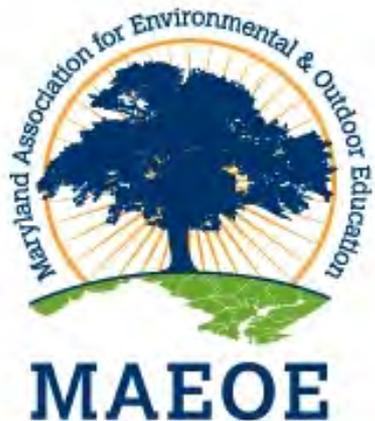www.maeoe.org

- Example Applications
- Application Guide
- Application Checklist
- Project Resources
- Green Leader Assistance
- Green School Application Tutorial videos

Questions?

MAEOE

- Laura Johnson Collard
- Executive Director
- 410 - 290 - 6226
- director@maeoe.org

Sustainable Maryland

Brandy Espinola

Program Manager

- 301.314.9491
- bespinol@umd.edu