### **Building Student** Environmental Leadership for a **Greener School System**

Abby Cocke and Andrea Calderón, Baltimore Office of Sustainability





## Baltimore Office of Sustainability

People · Planet · Prosperity



The Office of Sustainability

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 Sustainability Plan**

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

















### **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





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BALTIMORE COMMUNITY FOUNDATION



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### BALTIMORE CITY PUBLIC SCHOOLS



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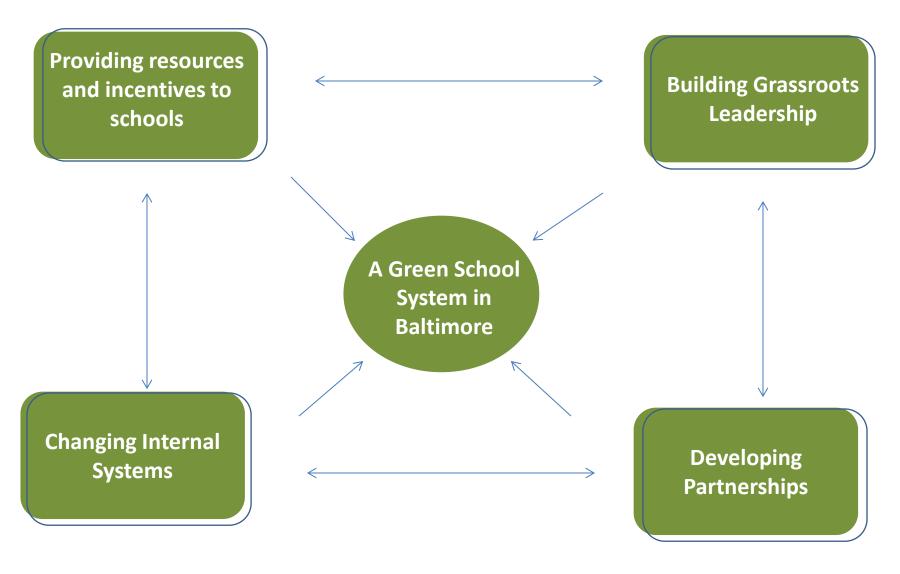


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BALTIMORE COMMUNITY FOUNDATION BALTIMORE CITY PUBLIC SCHOOLS



### **Theory of Change**



### **Education & Awareness Goals**

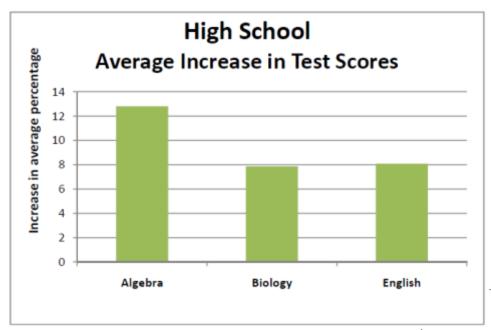
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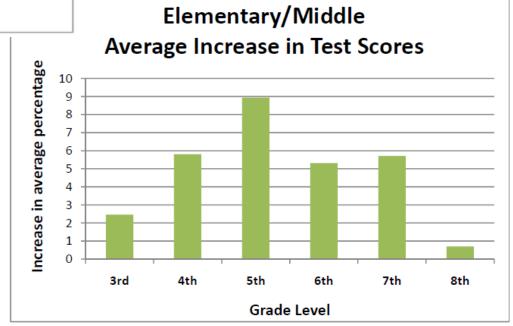
### MAEOE (Maryland Association of Environmental and Outdoor Education)

- Founded in 1985, MAEOE is a state-wide nonprofit educational association
- Began Maryland Green Schools Program in 1999



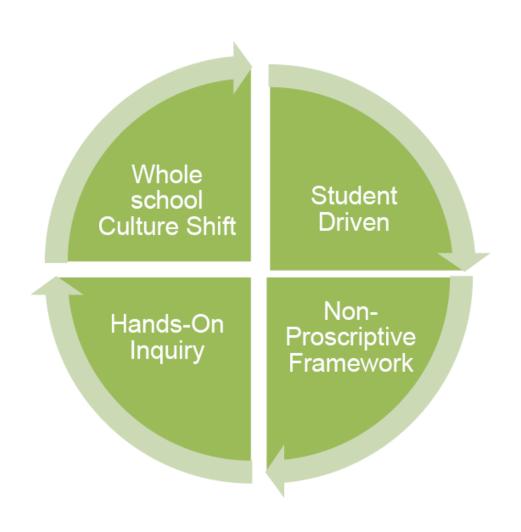


# Average test scores at MD Green Schools increased post-certification



Source: Dr. Sarah Haines, Director for Science and Mathematics Education, Department of Biological Science, Towson University.

# Maryland Green School Philosophy



### **Maryland Green School Application**

### **Objective 1: Systemic Sustainability**

- Environmental Issue Instruction
- Professional Development
- School-Wide Environmental Behavior Changes

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

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

- Community Partnerships
- Awards and Special Recognition

## The Green, Healthy, Smart Challenge: Grants of \$1,000-\$2,500 for youth-led environmental projects at city public schools

- Must be student driven
- Categories mirror the MD Green School application
- Projects have included gardens, field trips, energy audits, storm drain murals, wind turbines, and more



### Armistead Gardens Elementary/ Middle School

"The Green Team is like my very own community. While I'm helping myself, I'm helping others around me." – Sylvanna A., 5th grade









### Augusta Fells Savage Institute of Visual Arts



"A lot of things have changed. We have environmental science classes now, and the after school Green Club is a big thing now. They're the only club that works within the school. You can see the product of what they're doing, you can see their behavior change."

Willy Herrera, Green Team Teacher

### Augusta Fells Savage Institute of Visual Arts

"The students really take pride in it, since they're the ones who made the school a green school. It's not the teachers, it's the students moving and making things happen, because without them, no matter how big your ideas are, it won't happen."

Willy Herrera, Green Team Teacher



### **Hamilton Elementary Middle School**

"The students really enjoy making their mark on the garden. We did mosaic stepping stones over the winter, which got all the kids invested. I love seeing kids rush to find their stone and show them to their parents, to see the pride they have in it."

Scott Hartman, Garden Educator



### **Hamilton Elementary Middle School**



"I had a special education student whose reading level was very low... in 6th grade he had a decidedly bad year... his reward for doing a good job and staying in his classes was that he got to come out and work with me when I taught Pre-K and kindergarten... he's mended fences with a lot of teachers. He's just so very interested in everything outside and everything science related."

Scott Hartman, Garden Educator

### **Building Grassroots Leadership**



Student Logo Design

Foam Tray Advocacy

WYPR interview

Commission on Sustainability
Presentation





### Dialogue with experts:

- Food & Nutrition
- Energy Office
- Public Works
- Free Your Voice

# GREENSCAPE





# GREENSCAPE



### Youth Employment Model



Our Youth Environmental Interns: Pamela Jackson, Claire Wayner, and Ashley Edwards

### Youth Advocacy

- Training Series
  - How A Bill Becomes a Law Training
  - How to Lobby Training with a State Lobbyist
- Visits to City Hall
- Input on City Schools' Sustainability Policy
- Lobbying Night in Annapolis
- Feeding the City's Sustainability Plan





Mayoral Forum on the Environment



Advocacy Night at the State House



How to Lobby Training at the National Aquarium



Rescue Canoe Practice for the Baltimore Floatilla

### **Building a Youth Network**

- Creating events that encourage youth connections
- Create opportunities for dialogue
- Continue to connect with students and create opportunities for team building
- Development of a school cluster and training strategy
- Connecting with local University student groups

### **Future work**

- More state-level advocacy
- Outdoor leadership character development experience
- Implementation of School Cluster Strategy



### **Changing Internal Systems**

- Curriculum & Instruction: Green Leader AUs, Professional Development, Develop Comprehensive Environmental Literacy Plan
- City Schools Sustainability Policy Draft: Recycling, Coordinated Energy Reduction, Green Cleaning
- 21<sup>st</sup> Century Schools: Design Standards, Green School Workgroups, Net Zero, Renewable Energy
- Annual Report to the Board

### **Baltimore's Green Schools**

- Academy for College and Career
   Exploration High
- Augusta Fells Savage Institute for Visual Arts High
- Baltimore Lab School (I)
- Baltimore
   Montessori Public
   Charter School
- Benjamin Franklin High
- Calvert School (I)
- Catholic High School
   (I)
- City Neighbors Charter School
- Commodore John Rodgers Elementary/Middle
- Cross Country Elementary/Middle

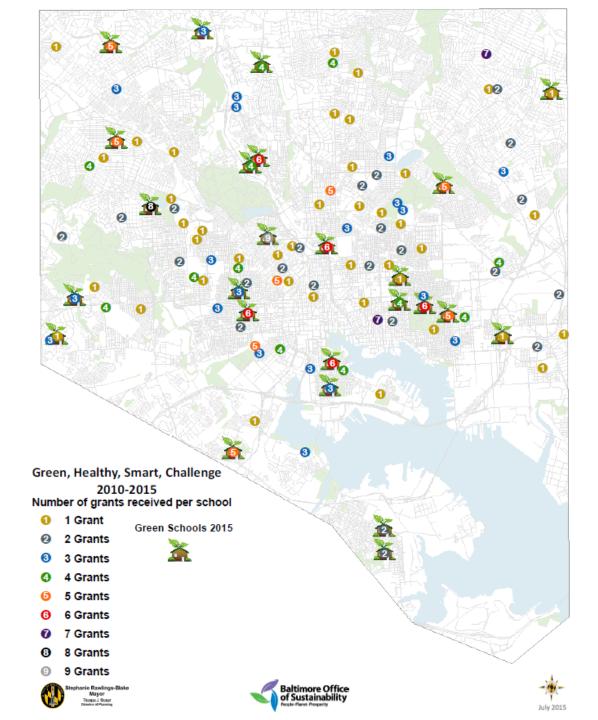
- Curtis Bay Elementary
- Federal Hill Prep Elementary
- Franklin Square Elementary/Middle
- George W.F.
   McMechen High
- Green Street Academy
- Henderson Hopkins Elementary/Middle
- Highlandtown #215
   Elementary/Middle
- Hilton Elementary
- Independence High
- John Eager Howard Elementary
- John Ruhrah
   Elementary/Middle
- Lakeland Elementary/Middle

- Mount Washington Elementary
- Patterson Park
   Public Charter
- Roland Park Country School (I)
- Roland Park Elementary/Middle
- St. Elizabeth School
   (I)
- St. Casimir School (I)
- The Bryn Mawr School (I)
- The Green School of Baltimore
- Thomas Jefferson Elementary/Middle
- Thomas Johnson Elementary/Middle
- Waldorf School of Baltimore (I)



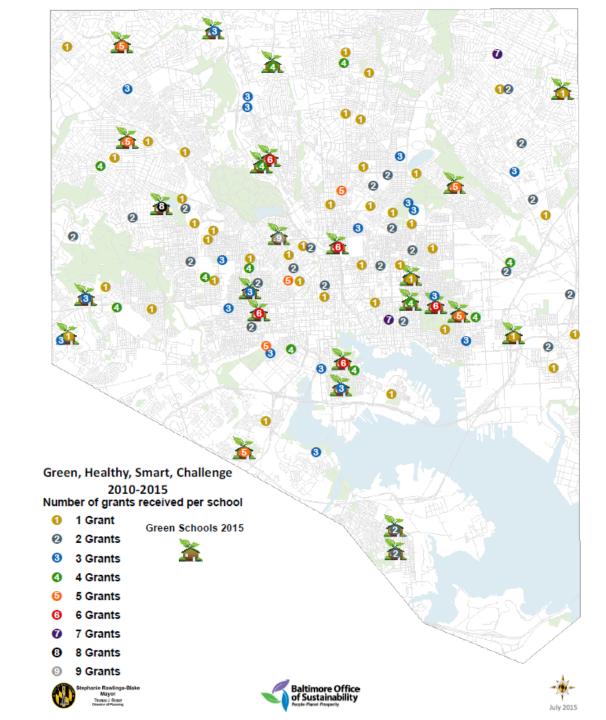


### • 2016: 55 grants



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- 2010-2016: 130

schools (70%!)



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2016: 26 MD
 Green Schools
 (14%)

