Sustainability Report: School Year 2018-19

Presentation to the Baltimore City Board of School Commissioners
Operations Committee

December 17, 2019
City Schools’ Sustainability Plan – 2018

- Develop environmentally literate students
- Create healthy school environments
- Reduce and conserve natural resources
- Improve school green spaces
- Engage school communities
- Build student leadership

For full plan, including strategies and metrics, see: [http://www.baltimorecityschools.org/sustainability](http://www.baltimorecityschools.org/sustainability)
Blueprint & Equity Policy

Sustainability supports:
- Wholeness
- Literacy
- Leadership

Plan, goals and implementation strive to create equity across the district

POLICY

BALTIMORE CITY BOARD OF SCHOOL COMMISSIONERS

1. Purpose

Baltimore City Public Schools acknowledges the historical, generational, and compounding reality of the systems, structures, and practices that have intentionally created and continue to afford advantages to some groups while perpetuating racial inequities for others. The district must take responsibility and action for removing, and actively reparing these inequities to ensure positive educational outcomes for children.

Through this policy, City Schools owns its role in creating and implementing policies and practices that result in predictably lower academic and graduation outcomes and disproportionate disciplinary action, for students of color than for their white peers. The district recognizes that these disparities contradict the beliefs and values we articulate about what students can achieve and the role of adults in creating conditions for success.

Rather than, continuing to perpetuate and contribute to institutional racism, Baltimore City Schools must move to disrupt and dismantle it in every area of our work. Our Board, district
What are green schools?

School buildings & operations

Environmental literacy

All to support academic achievement, mental & physical health
Develop environmentally literate students

Provide professional development to teachers and staff

- **Teacher PD**
  - Systemic PD – 75
  - Chesapeake Bay Fndn – 19
  - NorthBay – 9
  - Towson University - 12
  - Greening info sessions – 31

- **Custodial, Maintenance, Food & Nutrition Services**
  - OSHA training – 150+
Develop environmentally literate students

Provide standards-based curriculum

Curriculum-Embedded STEM Experiences aligned to science curricula

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<thead>
<tr>
<th>Grade</th>
<th>Attraction</th>
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<tbody>
<tr>
<td>1</td>
<td>Baltimore Museum of Industry</td>
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<tr>
<td>2</td>
<td>Great Kids Farm/Rawlings Conservatory</td>
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<td>3</td>
<td>Maryland Zoo in Baltimore</td>
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<td>4</td>
<td>National Electronics Museum</td>
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<td>5</td>
<td>Chesapeake Bay Foundation*</td>
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<td>6</td>
<td>National Aquarium*</td>
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<td>7</td>
<td>BioEYES</td>
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Biology – Watershed Investigation*

* Meaningful Watershed Educational Experience (MWEE), required by the Chesapeake Bay Watershed Agreement, requiring: in-class lesson, outdoor activity, action project

60 trips
2,389 students
Develop environmentally literate students

Provide standards-based curriculum

2\textsuperscript{nd} grade science: 
What do plants need?
\begin{itemize}
  \item Great Kids Farm
\end{itemize}

4\textsuperscript{th} grade social studies: 
Every Kid in a Park
\begin{itemize}
  \item Fort McHenry National Historic Site
  \item Hampton National Historic Site
  \item Gwynns Falls Leakin Park
\end{itemize}

48 schools
49 trips
2,021 students

128 trips
116 schools
4,789 students
Develop environmentally literate students
Connect schools to partners

- Green Schools Network – monthly e-newsletter to 1,400
- Partnerships with multiple public and non-profit entities
Healthy School Environments

Use green cleaning products

- 39% of non-charter schools purchased at least some correct supplies
- Continued outreach to custodians, school leaders, contract custodians
Reduce and Conserve Natural Resources

Reduce solid waste

- 142 schools signed up for recycling collection
  - new system provides point of contact
  - no collection or volume data from city Dept of Public Works

- Multiple student-led greening grants with recycling focus

- Information Technology Department
  - recycled 110,489 lbs of electronics
  - all new computers EnergyStar certified
Reduce and Conserve Natural Resources

Conserve Energy

- $129,000+ saved in corrected billing errors
- Retrofit of gymnasium lighting to LEDs at 10 schools; material costs covered by BGE rebates
- Retrofit of entire school lighting to LEDs at 2 schools; 85% material & labor cost covered by BGE rebates
- Graceland and Holabird – net zero energy schools under construction
Improve School Green Spaces

Add nature play spaces, outdoor classrooms, and gardens

- Four Farms to Schools Specialists, funded by Food & Nutrition Services
- Storm water management project planning by City Dept of Public Works
• Participated in Cities Connecting Children to Nature effort with City of Baltimore

• Mayor Young signed Outdoor Bill of Rights in May 2019
Engage School Communities

Maintain robust Green Schools Network of partners

- Multiple partners supporting schools
- Continued support from Constellation, BGE, Baltimore Community Foundation, Krieger Fund, Fund for Change, Baltimore Ravens
Engage School Communities
Build network of staff leading school-based sustainability efforts

• Of non-charter schools:
  • 88% designated Sustainability Ambassadors (97% in SY18)
  • 17% submitted a Sustainability Plan (17% in SY17)
  • 18% of all schools have Green School certification (17% in SY18)
  • 40 teachers at 23 schools received Green Leader Achievement Units (AUs) (24 teachers at 16 schools in SY18)
  • Participated in outreach events led by Office of Communications, Engagement and Enrollment
Build Student Leadership

Provide training and leadership opportunities

- 45 student-led greening grants – $77,000 (50 schools/$78,000 in SY18)
- 10 student-led energy grants – $10,000 (12 schools/$12,000 in SY18)
- 33 paid internships at Branches at Parks & People Foundation
- 6 paid internships at the City Office of Sustainability
# 21st Century Schools – Green Building Standards

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<tr>
<th>LEED certified</th>
<th>LEED planned</th>
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<tbody>
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<td><strong>Gold</strong></td>
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<td>Cherry Hill</td>
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<td><strong>Silver</strong></td>
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<td>Frederick</td>
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* Leadership in Energy and Environmental Design, a green-building standard*
Ongoing Challenges

Value
Disagreement about the value of the work

Budget
Lack of funds to do all we want to do

Time
Difficult to add or change a person’s work

Coordination
Cross-disciplinary effort required, made more difficult by turnover

Partners
Some partners struggling to provide services with limited funding
Focus Areas SY20

• Full-time Analyst-Sustainability position in Operations
• Build connections to the Blueprint for Success
• Bring equity questions to all discussions and actions
• Educate teachers and leaders on benefits of environmental literacy
• Support teachers and students to be green leaders

Sustainability resources
www.baltimorecityschools.org/sustainability

Google drive of resources
Comments or Questions?

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Additional Information Regarding Green Schools
“The evidence is unambiguous – the school building impacts student health, thinking and performance.”

Harvard TH Chan School of Public Health
https://schools.forhealth.org/
Environmental literacy

Green team has shown me a career path for my high school focus. I will be forever grateful.
8th grade student, Arlington EMS

I am excited to join the gardening club next year!
Student, Graceland Park-O’Donnell Heights EMS

I learned a lot about how people compost things like egg shells or fruit to help the environment. Also how it's useful helping plants grow. My favorite thing this year was that the first day I went to Green Lions I got to plant in the garden.
3rd grade student, Lakeland EMS

I never knew how many birds used Patterson Park for their migration. It’s so cool!!
2nd grade student, Commodore John Rodgers EMS
Students were more engaged and less distracted after lessons in a natural outdoor setting compared to classroom-based lessons. 

School garden activity may promote science equity and help close the achievement gap between more-privileged and less-privileged students.

Improved classroom ventilation is correlated with standardized test scores.
MENTAL HEALTH benefits

Horticulture-related activities can reduce the stress levels and salivary cortisol concentration of elementary school children with emotional and behavioral concerns. 

Access to natural environments can benefit children in various ways, including improvements in confidence, social interactions, cognitive development, academic achievement, and emotional well-being.

Participating in outdoor education classes on a regular basis has a positive effect on children’s stress responses.
PHYSICAL Benefits

Green school grounds improve quantity and quality of elementary school children’s physical activity [citation]

Harsh cleaning chemicals can exacerbate custodians’ asthma [citation]

Green school grounds promote the holistic development and health of children [citation]
ADDITIONAL Benefits

An hour or two of outdoor learning every week increases teachers' job satisfaction [citation]

Green school buildings are better for budgets [citation]
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