# Beyond the Standard Curriculum: An Indoor Hydroponic Vertical Farm

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PHILLIPS Programs
United States of America

Health and Wellbeing Education

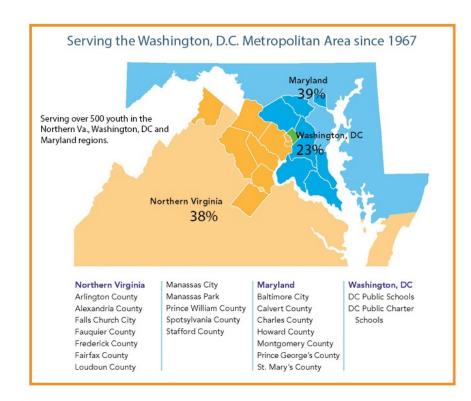


Zero Project Conference Wed. February 19, 2020 12:10 pm



#### ~ PHILLIPS Schools ~ PHILLIPS Career Partners ~ PHILLIPS Family Partners

### Serving Children, Youth, Young Adults with Complex Social, Emotional and Behavioral Health Needs



Youth referred to PHILLIPS have:

- experienced repeated school failure
- have complicated profiles and needs
- 82% live below the US Federal poverty line

PHILLIPS builds programs around youth, rather than having youth fit into a program



#### What is An Indoor Hydroponic Vertical Farm?







# Students grow fresh produce indoors all year long

- Lettuce: 590 heads yearly i.e. arugula, bib, romaine
- Microgreens: 16 varieties
   i.e. carrots, wasabi
- Other specialty produce
   i.e. basil, mint, edibile flowers









## Culinary Arts and Urban Agriculture: A Career and Technical Education Program





Grow Produce & Use in Culinary Class



Open House and Tours



Sell Produce to Local Restaurants



Snip, Snap, Sauté In House & Community Lunches



Internships



#### **Innovation:**

#### Don't think outside the box, think as if there is no box.



Farm To Table Food Sustainability



Health & Wellness: Students



Health & Wellness: Staff



Entrepreneurial Skills



#### **The Impact Created**



#### YOUTH

Youth: Develop marketable career skills to include "soft skills" and technical skills

Youth: Are employed in a chosen career pathway after graduation from high school.

#### **EMPLOYERS**

Employers:
Have an
established
pipeline of
qualified,
skilled entry
level
workers.

#### COMMUNITY

Community: Has access to locally, produced, fresh food

### YOUTH FAMILIES, & STAFF

Youth, Families, Staff: Increase awareness and access to healthy eating



## Utilizing a Logic Model: Expected and Unexpected Outcomes:



#### YOUTH VOICE and OUTCOMES

- Increased competencies in both culinary arts & vertical farming
- Increased awareness in healthy foods
- Increased willingness to help others with limited resources
- Increased workplace soft skills
- Increased social emotional skills

### IMPACT ON THE SCHOOL COMMUNITY

- Increased knowledge of hydroponics
- Increased knowledge of microgreens
- *Increased* pride in students
- Increased pride of school program
- Increased willingness to grow food



#### Financing, Challenges and Sustainability

















#### **Reflection and Lessons Learned**

- Jump In
- Utilize a Logic Model to Guide Program Design, Implementation and Evaluation
- Incorporate Youth Voice
- Embrace "Failure is not final"





#### Next Steps: An Employee Owned Social Enterprise



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Employment

Employee Ownership

Local Economic Development Increased Food Sustainability

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