

The STEM Academy at Booker T. Washington: *Old Dominion University & Suffolk Public Schools Lab School*

College Partnership Lab Schools

Standing Committee Meeting

May 6, 2024



Why the STEM Academy at Booker T. Washington?

Proposes an innovation model:

- Centers on a comprehensive integration of STEM (Science, Technology, Engineering, and Mathematics) education
- Builds hands-on, practical STEM experiences into curriculum
- Enhances student academic proficiency
- Develops critical thinking and problem-solving skills
- Fosters a deeper understanding of core subjects and prepares students for real-world challenges

Goals:

- Introduce students to innovative STEM initiatives in the field (Science, Technology, Engineering, and Mathematics)
- Cultivate a renewed interest among parents, encouraging them to actively seek enrollment for their children
- Optimize the school's potential in fostering a vibrant learning environment for students in STEM disciplines



SABTW Mission

Our mission is to:

- Broaden student horizons and inspire them, with an instilled sense of responsibility and ambition
- Address the needs of low socioeconomic populations by emphasizing the importance of STEM exposure
- Provide innovative, hands-on, dynamic teaching and learning laboratory for students from disadvantaged backgrounds to explore the world of STEM
- Collaborate around research to build and share knowledge of transformative practices



SABTW Vision

Our vision is to cultivate a generation of productive citizens who are prepared for the world - with awareness, understanding, skills, and knowledge needed for success in high school, college and STEM careers – contributing to societal advancement and the narrowing of educational disparities.



SABTW Instructional Focus & Innovations

- Coursework emphasizing the integration of STEM areas into Curriculum
 - Math, Language Arts, Social Studies, Science, Engineering
 - Resource classes; Tech Labs
- Building the next generation of future STEM teachers through *Educators Rising*, beginning Fall 2024
- A robust student-teacher program to prepare future educators for interdisciplinary STEM teaching, through rigorous, field-based residencies and apprenticeships
- Mentoring programs connecting students and teachers with college students, professionals, and regional STEM industry leaders
- Leveraging the iLab as a professional development hub for innovative lesson development and community of practice



Enrollment Projections

2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
120	120	120	120	120



A Day in the Life of a SABTW Student

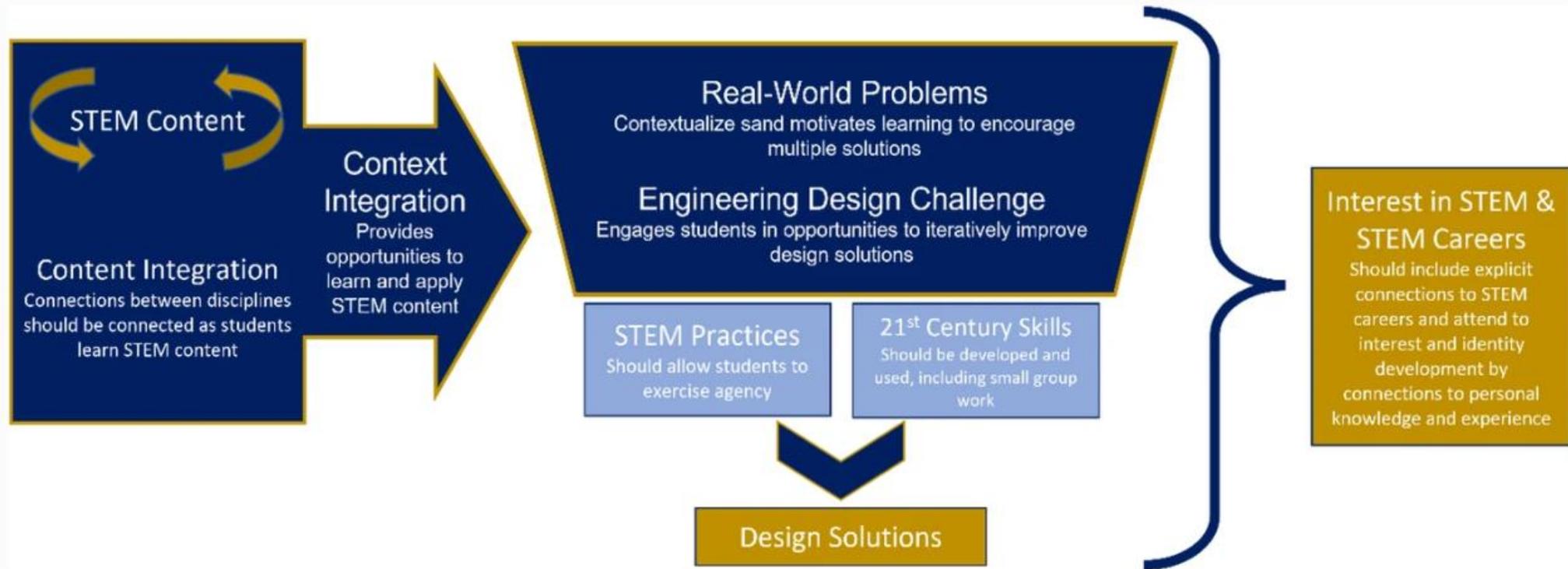
Sample Lab School Student Schedule	
9:25 AM - 9:40 AM: Arrival and Morning Meeting	
9:40 AM - 10:30 AM: STEM Math Focus	
10:30 AM - 11:20 AM: Language Arts (STEM integrated)	
11:20 AM - 11:50 AM: Lunch	
11:50 AM - 12:15 PM: Recess	
12:15 PM - 1:05 PM: STEM Science & Engineering Focus	
1:05 PM - 1:50 PM: Resource Class I (PE, Technology Lab, Art, Music, Media Center)	
	1:50 PM - 2:40 PM: Social Studies (STEM integrated)
	2:40 PM - 3:25 PM: Resource Class II (Maker Space, STEM Lab, Computer Science, STEM Career Exploration, Student Club)
	3:25 PM - 3:50 PM: Daily Review / Exit Ticket and Pack Up
	3:50 PM: Dismissal



SABTW Instructional Focus

Fig. 1

From: [Beyond the basics: a detailed conceptual framework of integrated STEM](#)



Interactions between critical characteristics of integrated STEM



Research: Optimizing Impact

- Researcher-practitioner partnerships among ODU Faculty and Lab School Staff
- Design-based research will emphasize data-informed decision making
- Evidence-based models of teacher professional development
 - Professional learning communities will focus on cross-cultural STEM integration and ODU Ecosystem
 - Action research and lesson study will promote learning for pre-service teachers

Evaluation: Establishing a Model

- To what extent to which the Lab School components will be implemented as planned?
- How are the key stakeholders, (students, parents, faculty, teachers, community) impacted by the SABTW?
- In what ways can the Lab School sustainability strategy serve as a model for others?



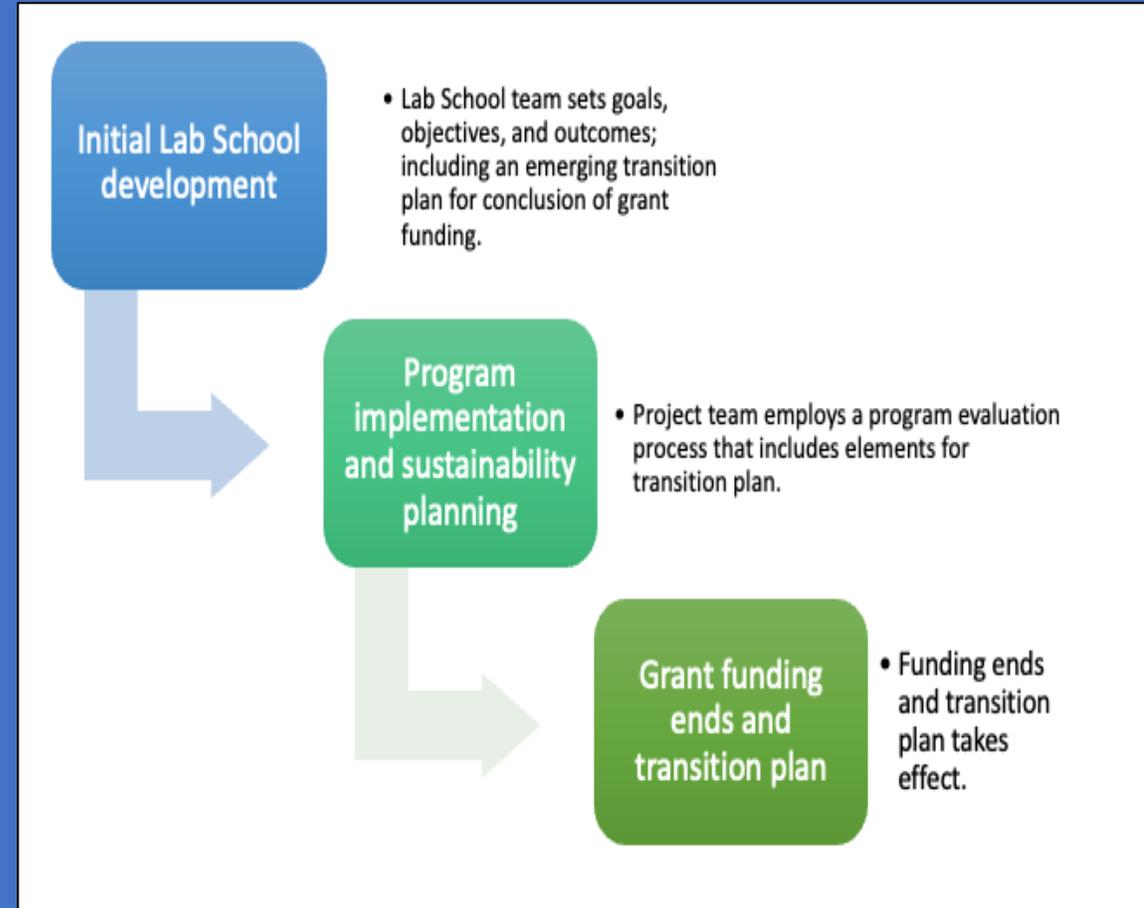
Support & Industry Partners



Sustainability Plan

Braided Sustainability Approach: *Leveraging our STEM Regional Ecosystem*

- *Grants*
- *Development*
- *Fundraising*
- *Partnership position-base funding*
- *Institutional commitment*



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Thank you for this opportunity!

