

**Planning Grant Application
for a College Partnership Laboratory School**

A. GENERAL INFORMATION

1. Public institutions of higher education (IHE); public higher education centers, institutes, or authorities; or eligible institutions of higher education as defined in the Tuition Assistance Grant Program, as provided in § 23.1-628, (eligible entity or entities) may apply for a Virginia Board of Education (Board) College Partnership Laboratory School Planning Grant (Planning Grant).
2. Each Planning Grant Applicant (Applicant) seeking a Planning Grant must read and comply with the Instructions for Application for a Planning Grant for a College Partnership Laboratory School (Lab School), which are available on the Virginia Department of Education's (Department) website, and fully complete this Planning Grant Application (Application) to be eligible for a Planning Grant.
3. Applications may be submitted on a rolling basis and will be evaluated for Planning Grant awards based on factors set forth herein.
4. **Planning Grant Term: This Application is for a one-time Planning Grant, the term (Term) for which will not exceed 12 months from the date of any award hereunder.**
5. The completed PDF version of the Application and related materials must be sent to labschools@doe.virginia.gov by email. The Department may return or reject an Application that is incomplete.
6. Please contact labschools@doe.virginia.gov by email if there are any questions about the Application process.

A.1. KEY CONTACTS, SUBMISSION DATE, AND FUNDING REQUEST

1. **Name of Eligible Entity (Planning Grant Applicant):** Old Dominion University
2. **Address of Eligible Entity (Planning Grant Applicant):** 5115 Hampton Boulevard,
Norfolk VA 23529
3. **Name of Authorized Official Representative:** Ms. Luanne Bowman
4. **Email Address for Authorized Official Representative:** lbowman@odu.edu
5. **Telephone Number for Authorized Official Representative:** 757-683-5421
6. **Name of Contact Person for Application:** Karen L. Sanzo
7. **Email Address for Contact Person for Application:** ksanzo@odu.edu
8. **Telephone Number for Contact Person for Application:** 757-683-4757
9. **Name of Partnering School Division (if applicable):** Suffolk Public Schools
10. **Name of School Board Chairman of Partnering School Division(s) (if applicable):**
Tyron D. Riddick
11. **Email Address for School Board Chair of Partnering School Division(s) (if applicable):** tyronriddick@spsk12.net
12. **Name of Superintendent of Partnering School Division(s) (if applicable):** Dr. John B. Gordon III
13. **Email Address for Superintendent of Partnering School Division(s) (if applicable):** johngordon@spsk12.net
14. **Name of Industry or Community Partner(s) (if applicable):** Click or tap here to enter text.
15. **Name of Contact Person for Industry or Community Partner(s) (if applicable):**
Click or tap here to enter text.

16. **Email Address for Industry or Community Partner(s) (if applicable):**
17. **Phone Number for Industry or Community Partner(s) (if applicable):** Click or tap here to enter text.
18. **Date of Submission:** December 29, 2023
19. **Amount of Funding Requested (\$200,000 maximum):** \$200,000

B. DEFINITIONS

1. **College Partnership Laboratory School:** In accordance with Item 4-14 of the General Assembly’s 2022-2024 Biennium budget, the Code of Virginia § 22.1-349.1 is amended and reenacted, and the types of IHE eligible entities to establish Lab Schools are defined as follows:
- a. "College Partnership Laboratory School" means a public, nonsectarian, nonreligious school in the Commonwealth established by a public institution of higher education; public higher education center, institute, or authority; or an eligible institution, as defined in § 23.1-628. Notwithstanding the provisions of § 22.1-349.5, a public institution of higher education; a public higher education center, institute, or authority; or an eligible institution, as defined in § 23.1-628 may submit an application for formation of a college partnership laboratory school.”
 - b. An “eligible institution” as provided above is an institution of higher education as defined in the Tuition Assistance Grant Program in accordance with § 23.1-628.
2. **At-risk student:** As provided in the Code of Virginia § 22.1-349.1, "at-risk student" means a student having a physical, emotional, intellectual, socioeconomic, or cultural risk factor, as defined in Board criteria, that research indicates may negatively influence educational success.

For the purpose of these guidelines and any Planning Grant awards, “at-risk students” include (a) students who have experienced learning loss as the result of the COVID-19 pandemic; (b) students served by low-performing schools that are designated as “accredited with conditions” or “accreditation denied” based on the Virginia Board of Education’s accreditation ratings; and (c) students attending schools identified under the Every Student Succeeds Act within three support categories: (i) Comprehensive Support and Improvement, (ii) Targeted Support and Improvement, or (iii) Additional Targeted Support Category.

3. **Regional diversity:** For the purpose of evaluation of this Application, regional diversity reflects representation from each of the Department’s eight Superintendent regions.

C. ASSURANCES AND SIGNATURES

1. ASSURANCES

- a. By signing and submitting this Application, the Applicant assures that it will adhere to state and federal laws and regulations governing public schools, including the *Virginia Standards of Quality*, the *Virginia Standards of Learning*, and the Board’s *Regulations Establishing Standards for Accrediting Public Schools in Virginia*.
- b. The Applicant assures that all elements of the proposed school(s) will comport with all applicable state and federal laws and regulations.
- c. The Applicant certifies that to the best of his/her knowledge the information in this Application is correct, that all Application elements have been addressed as required in this Application, and that the Applicant understands and will comply with the assurances.
- d. The Applicant agrees to conduct a review of their planning phase, and submit milestones and deliverables as required, including, but not limited to, a comprehensive report with details for the projected Lab School implementation, expenses, and other items as may be prescribed by the Department.
- e. Applicants receiving a Planning Grant are expected, by the end of the term of such grant, to submit a subsequent application for the launch of a Lab School to the Department, for review and approval by the Board.
- f. Applicant provides assurance to subscribe to the following reporting requirements timetable:

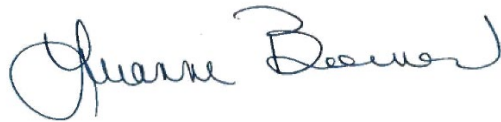
TIMELINE	BENCHMARK AND DELIVERABLES
On or before the end of the first quarter of the grant term	Awardee must present a proposed list of milestones, measures of success, and deliverables.
On or before the end of the second quarter of the grant term	Awardee must submit a progress report in order to be eligible for the second installment of the award.

On or before the end of the third quarter of the grant term	Awardee must present progress on milestones and deliverables, including submission to the Board of an application for approval to launch a Lab School.
On or before the end of the grant term	Awardee is expected to have attained approval by the Board to launch a Lab School.

2. SIGNATURES

a. Higher Education Authorization:

Signature of [AUTHORIZED REPRESENTATIVE of public institution of higher education; public higher education center, institute, or authority; or an eligible institution]:



Printed Name: Luanne Bowman
 Title: Associate Vice President of Academic Affairs
 Date: 12/30/23

b. Fiscal Agent Authorization (if applicable):

Signature of Division Superintendent of Fiscal Agent School Division:

Printed Name: Click or tap here to enter text.
 Title: Click or tap here to enter text.
 Date: Click or tap here to enter text.

c. Signature of Chairman of School Board of Fiscal Agent:

Printed Name: Click or tap here to enter text.

Title: Click or tap here to enter text.

Date: Click or tap here to enter text.

D. REGIONAL AND APPLICANT DIVERSITY

1. Planning Grants will be awarded in a manner that encourages ready access to Lab School options and the establishment of Lab Schools in each of the Department's eight Superintendent regions.
2. Indicate Superintendent Region of Proposed of Lab School: Dr. John B. Gordon III
3. Indicate Proposed Name(s) of Lab School: Booker T. Washington Elementary School
4. Identify Proposed Physical Location(s) of Lab School: Suffolk Virginia

E. PROGRAM DESCRIPTION, GOAL, AND TIMELINE

1. PROGRAM DESCRIPTION

- a. General description of the program (*2-3 paragraphs maximum*):

Old Dominion University and Suffolk Public Schools propose establishing a STEM-focused laboratory school within Booker T. Washington Elementary. The lab school will serve 120 students in grades kindergarten through 5th grade and will be designed to be an innovative learning environment for students, a learning hub for educator preparation, and research setting for both University faculty and K-12 educators. The lab school will provide a rich environment for the utilization of innovative teaching methods, curriculum development, and educational theories in a practical, hands-on setting. The laboratory school is guided by a mission and philosophy that emphasizes 1) a commitment to excellence in education, 2) the critical nature of student active agency and student voice in learning, 3) experimentation with pedagogical approaches and experiential learning, 4) innovative approaches to professional learning and educator preparation, and the 5) integration of research and teaching.

The lab school will provide robust experiential STEM learning for elementary-aged youth. Our partnership leverages our past work and initiatives around K-12 STEM learning, design thinking, and experiential learning. Suffolk Public Schools is committed to K-12 STEM education, as most recently documented in the 2023 publication of "STEM Century: It Takes A Village To Raise A 21-st Century Graduate: Suffolk VA" and the recent documentary of the same name, in partnership with 21st CentEd. We will also leverage the collective resources of Old Dominion University to include the Darden College of Education and Professional Studies, the ODU Institute for Coastal Adaptation & Resilience the Brooks Crossing Innovation Lab, the Institute for Design Thinking and Leadership Development, the School of Data Science, the ODU Tech Talent Pipeline, the Department of Computer Science, the School of Cybersecurity.

We seek to reimagine the ways in which education takes place, including ensuring students engage in experiential learning and are supported by well-prepared educators. It aims to provide a nurturing and intellectually stimulating environment that fosters the holistic development of each child. The lab school will design community and field-based learning experiences focusing on addressing problems of practice. As part of this effort, the partners will focus on preparing teachers to create experiential and innovative learning environments integrated with STEM concepts, maximizing student engagement. Lastly, within the lab school, the mission is to create an inclusive and diverse community, recognizing the importance of catering to the unique learning styles and backgrounds of all students.

- b. Rationale for the program (*2-3 paragraphs maximum*): Click or tap here to enter text.

Booker T. Washington Elementary School, one of eleven elementary schools within Suffolk Public Schools, currently operates below its capacity. Despite its advantageous location, the school lacks the appeal to motivate parents to consider transferring their elementary school students to it. In an effort to address this challenge, we are eager to introduce innovative initiatives in the field of STEM (Science, Technology, Engineering, and Mathematics) at this particular school. Our goal is to cultivate a renewed interest among parents, encouraging them to actively seek enrollment for their children, thereby optimizing the school's potential and fostering a vibrant learning environment for students in STEM disciplines.

The proposed innovation for this program centers on a comprehensive integration of STEM (Science, Technology, Engineering, and Mathematics) education. By incorporating hands-on STEM experiences into the curriculum, students will not only enhance their academic proficiency but also develop critical thinking and problem-solving skills. This approach fosters a deeper understanding of core subjects and prepares students for real-world challenges.

Moreover, the initiative aims to address the needs of low socioeconomic populations by emphasizing the importance of STEM exposure. By providing access to STEM resources and experiences, students from disadvantaged backgrounds will have the opportunity to explore a diverse range of career options. This exposure not only broadens their horizons but also instills a sense of possibility and ambition. Ultimately, the long-term outcome goal is to cultivate a generation of productive citizens who are well-equipped with the skills and knowledge needed for success in both college and various STEM-related careers, contributing to societal advancement and narrowing educational disparities.

- c. Nature of innovation proposed for the program, including how it will improve student academic proficiency, mastery, college and career readiness, and long-term outcome goal (*2-3 paragraphs maximum*):

The laboratory school's vision is to foster deeper learning and the development of 5C skills (critical thinking, creative thinking, collaboration, communication and citizenship) through the application of classroom content in authentic, real-world learning experiences. Our mission is to support and promote 1) excellence in education, 2) student active agency and student voice in their learning, 3) experimentation with pedagogical approaches and experiential learning, 4) innovative approaches to professional learning and educator preparation, and the 5) integration of research and teaching. Our theory of action is that, *IF* students are offered creative influence on the learning process; *THEN* we will see an increase in classroom engagement, academic achievement and the awareness and utilization of 5C skills needed for college and career readiness. Specific innovations will include: overarching thematic approach to interdisciplinary learning across grade levels, ongoing field-based experiential learning, integration of design thinking and improvement science principles and approaches, and intensive professional learning and iterative curriculum development.

Authentic learning consists of essential pedagogical practices that have the potential to boost student engagement by allowing them to make connections between their experiences in school and the world outside of school. Authentic learning is said to be able to engage students more deeply on more complex tasks than other styles of education since it is based on student-driven inquiry (Groff, 2013). Approaches that can bring authentic learning into the classroom include the use of learning methodologies that include real-life experiences, technology and resources that students are already familiar with, and interactions with community members. Student-centered teaching is about asking the right questions, utilizing the proper tools, and piquing students' interest in content. As a result, it is now more important than ever to embrace technology as a means of capturing student interest. These types of techniques help prepare students for higher education, and future careers. For example, in May 2023, Suffolk Public Schools, in partnership with Global Health Connections International, offered a field trip to the annual STEM Fly-In in Morrisville, NC to greet and meet F/A 18 Super Hornet Pilots. Students were provided with information about military and STEM related jobs and opportunities as experienced by decorated United States Navy pilots. Students also witnessed the pilots land and explored the jets at the UPS RDU Airport Hub. These opportunities are one example and facet of how students in a STEM laboratory school will receive expanded learning to apply and connect in-school instruction.

Our current and future community partners will assist in providing insight on exposing students to more obvious and unknown STEM opportunities that are integral in day to day business and community operations. Bringing STEM to life using a cross-curricular, relevant and real world approach will expand the learning and application opportunities students will experience. Suffolk Public School students will also use this knowledge to connect established presentations with a real world communication style that improves students' developmental skills in the 5 C's. Students will collaborate in meaningful projects; communicate their advocacy and demonstrate creativity through presentations, proposals etc.; demonstrate citizenship by bringing awareness to issues and regulations that relate to our organization's area of focus; and think

critically about how they might meet a community need or address STEM related problems in society. Currently, Suffolk Public Schools middle school media centers have makerspaces where students can create and explore STEM activities. The STEM laboratory school will expand on this space concept and bring these same experiences to the classroom in connection with standards-based learning. Thereby making the regular classroom an everyday part of the creative space within the school community.

- d. Expected student learning benefits (*2-3 paragraphs maximum*): Click or tap here to enter text.

The laboratory school is designed to offer a range of learning benefits that extend beyond traditional educational settings. Here are some expected learning benefits for students: innovative teaching methods, hands-on learning experiences, individualized instruction, integration of technology, critical thinking and problem-solving, research skills, creativity and innovation, social and emotional development, and early exposure to STEM education.

Students in the laboratory school will have the opportunity to experience and benefit from cutting-edge teaching methods and pedagogical approaches. This exposure can enhance their critical thinking skills and adaptability to different learning styles. The curriculum will emphasize hands-on and experiential learning, allowing students to actively engage with the material. Every 2-3 weeks the lab school students will engage in field-based experiential learning trips. This approach will deepen their understanding of concepts, encourage curiosity, and foster a love for learning. With a focus on research and innovation, teachers in the laboratory school may implement individualized instruction tailored to each student's learning needs. This personalized approach will address diverse learning styles, strengths, and challenges, promoting academic success.

The use of technology in the learning environment will equip students with essential digital literacy skills. Exposure to educational technology will enhance their ability to navigate and use digital tools effectively for both learning and future endeavors. The emphasis on innovation in teaching and curriculum design can nurture students' creativity. Encouraging creativity and innovation prepares students to approach challenges with an open mind and think creatively in various aspects of their lives. The laboratory school will offer early exposure to STEM education. This early exposure can spark an interest in these fields and lay the foundation for future academic and career pursuits in STEM-related fields. By fostering a love for learning, adaptability, and a growth mindset, the laboratory school will prepare students for a lifelong journey of acquiring knowledge and skills. These qualities contribute to their ongoing success in education and beyond. Lastly, the lab school will prioritize holistic development, including social and emotional well-being. Students may participate in activities that promote teamwork, communication, and emotional intelligence, helping them build strong interpersonal skills.

- e. Expected teacher learning and professional development benefits (*2-3 paragraphs maximum*): Click or tap here to enter text.

The laboratory school will provide a continuum of professional learning for teacher candidates and practicing teachers focused on developing and refining innovative curriculum and teaching methods that enhance students' critical thinking skills, understanding of STEM concepts, and curiosity through hands-on, authentic learning. In order to strengthen the pipeline of elementary teachers prepared to leverage cutting-edge educational technologies and teaching methods, there will be three phases of teacher preparation and development: Teachers for Tomorrow for high school students, MonarchTeach for ODU STEM teachers and STEM-focused elementary teachers, and a professional development hub that provides STEM coaching for the ongoing development of teachers' skills.

Recruiting and preparing skilled teachers with strong STEM content and instructional practices will be a key focus of the lab school. The Teachers for Tomorrow initiative will support a "grow your own" model that invests in high school students who demonstrate an aptitude for and interest in STEM education. By engaging these students in opportunities to work with elementary students in experiential and project-based learning with appropriate technologies, we anticipate attracting a new generation of future teachers. A Teachers for Tomorrow program will engage high school juniors and seniors in hands-on learning through an innovative curriculum that will foster student interest and understanding of the teacher profession while providing coursework with dual enrollment credit. Participants will learn about careers in education, develop and practice teaching strategies, and participate in a practicum experience. These students, upon entering Old Dominion University, would join MonarchTeach, a joint collaboration between the College of Education and the College of Sciences that provides a crucial pathway for students who are majoring in STEM fields to pursue both their B.S. degree in their chosen field as well as simultaneously earning their teaching licensure for either secondary education (grades 7-12) or specifically for middle school science. This program is modeled after the nationally acclaimed UTeach program developed by the University of Texas at Austin, and it incorporates early and frequent field teaching experiences with hands-on experiences for students starting in their first semester of the program. Students are guided to develop challenging but appropriate interactive lesson plans grounded in project-based and inquiry-based instructional methods. In addition, students in MonarchTeach take courses in classroom interactions and developmentally guided knowing and learning to support their roles as teachers. Suffolk and ODU are already partnering on building the STEM teacher pipeline through a National Science Foundation-funded Noyce grant that provides scholarship support for STEM teacher candidates.

Providing high-quality professional development to support STEM integration and strong instructional practices emphasizing hands-on, student-centered learning will be a second primary focus of the lab school. STEM coaches will collaborate with the teachers to develop and enhance the evidence-based teaching strategies necessary to achieve the lab school's goals for its students. Coaches with mastery of highly effective practices and understanding of integration of STEM across the curriculum will work with teachers by creating a shared space conducive to learning, reflection, practice, and refinement. The coaches will provide individualized coaching and support as well as group professional development opportunities for the lab school's teachers

as well as other teachers throughout the division. They will bring to their role a strong understanding of the needs of adult learners, depth of STEM content, and a wealth of instructional strategies and technologies.

- f. Content areas addressed: Science, Social Studies, Mathematics, English, STEM, Career and Technical Education (CTE)

2. GOAL

State the overall proposed goal for the Lab School:

Click or tap here to enter text.

The overall goal of the laboratory school is to serve as a dynamic and innovative educational environment that integrates research, teaching, and learning. Key components of the overall goal include innovative education, research integration, teacher professional development, model for best practices, individualized learning, preparation for future challenges, community engagement, holistic development, and lifelong learning. We seek to provide students with an education that goes beyond conventional methods. An additional goal is to implement and test innovative teaching strategies, instructional technologies, and curriculum designs that can potentially improve learning outcomes. Additionally, the laboratory school will be dedicated to fostering a culture of continuous improvement among educators. It will provide a platform for teachers to engage in ongoing professional development, collaborate with researchers, and refine their teaching practices based on evidence and research findings.

The overall goal includes preparing students for the challenges and opportunities they will face in a rapidly evolving world. This preparation involves not only academic excellence but also the development of critical thinking, problem-solving skills, creativity, and adaptability. Ultimately, the goal of a laboratory school is to instill a love for lifelong learning in students. By promoting curiosity, a growth mindset, and a passion for knowledge, the school aims to equip students with the skills and attitudes necessary for continual learning throughout their lives.

The lab school's goal reinforces Goals one and two of Suffolk Public Schools' strategic plan. Goal one is to ensure all students will develop characteristics of a Virginia graduate to include critical thinking, creative thinking, collaboration, communication, citizenship and growth in order to demonstrate academic excellence. Additionally, Goal two is to create a dynamic learning environment that promotes high student achievement, stimulates student engagement, supports staff creativity, ensures school safety, and reinforces positive staff and student relationships.

3. TIMELINE

Provide a timeline of the planning process, including the proposed date/school year for launch of the proposed Lab School:

2024-2025 - School Year will be utilized for planning, identifying staff and providing PD, marketing. 2025-2026 - We will bring on Kindergarten - 5th Grade (120 students). Below is the proposed planning grant timeline, including the anticipated lab school launch date.

Time	Activity
December 2024	Convene leadership team Assemble writing team to discuss the grant Develop plan for completing the lab school application Begin to develop list for advisory boards Set schedule for leadership team meetings
January 2024	Twice a week leadership team meetings for grant writing and grant planning Begin to identify committee teams and potential members Identify comparable lab schools for collaboration and travel Gather stakeholder input Interview others who have created lab schools Draft application Begin curriculum planning
February 2024	Weekly leadership team meetings Continue curriculum writing Build out PD plan Continue stakeholder sessions Meet (virtually) with others who have developed lab schools Travel to comparable lab school (if applicable) Continue committee meetings for lab school development
March 2024	Leadership team meetings Travel to comparable lab school (if applicable) Continue curriculum and professional development plan Continue stakeholder sessions Continue committee meetings for lab school development Meet (virtually) with others who have developed lab schools
April 2024	Leadership team meetings Continue curriculum and professional development plan Attend International Association of Laboratory Schools Conference Begin research projects Continue committee meetings for lab school development
May 2024	Leadership team meetings Continue curriculum and professional development plan Identify possible research projects Continue committee meetings for lab school development
Summer 2024	Begin marketing lab school to students and parents Implementation grant receipt

	Continue curriculum and professional development plan Begin professional development Order equipment for lab school site Hire director Develop marketing plan Continue committee meetings for lab school development
Fall 2024 - Summer 2025	Follow Implementation grant start up schedule
September 2025	Enroll first cohort of students in lab school

F. STUDENT POPULATION AND RELEVANT RESEARCH

1. TARGETED STUDENT POPULATION

- a. Describe the student population planned for the proposed Lab School, including the number of students, reporting group(s), and grade level(s) contemplated, and discuss why the specific student population is targeted to attend the Lab School.
 Click or tap here to enter text.

Booker T Washington Elementary School is currently located at 204 Walnut Street Suffolk, VA. Its rich history dates back to 1913, when it opened as a high school for African American students. At that time the school was located at 201 Lee Street and served first through eighth grade students. By 1949, Booker T. Washington High School served students up to twelfth grade. The school was later renovated to become an elementary school in 1999, serving students in grades Pre-K through fifth.

Current Enrollment - Currently Booker T. Washington serves 369 students.

Grade levels- Pre-Kindergarten through 5th grade.

Reporting Groups:

- African American/Black- 89.43%
- Hispanic- 1.36%
- Caucasian/White-6.5%
- Native American-
- Asian/Pacific Islander
- American Indian-1%
- Two or More Races-1.63%

Booker T. Washington Elementary school has the highest percentage of Economically Disadvantaged (72%) students within the City of Suffolk. Students require regular access to opportunities for developing highly adaptive skills early on. This ensures they are well-equipped to navigate challenges, seize opportunities, and realize their full potential in both their personal

and professional lives. Our goal is to enhance student achievement and bridge learning gaps by offering diverse experiences that allow students to connect classroom lessons with real-world applications.

PROPOSED GRADES TO BE SERVED FOR THE FULL TERM OF THE APPROVED LAB SCHOOL CONTRACT (PLEASE CHECK ALL THAT APPLY*)			
Pre-K		Sixth Grade	
Kindergarten	•	Seventh Grade	
First Grade	•	Eighth Grade	
Second Grade	•	Ninth Grade	
Third Grade	•	Tenth Grade	
Fourth Grade	•	Eleventh Grade	
Fifth Grade	•	Twelfth Grade	

*If the Applicant intends to add or change grade levels at some point during the Lab School’s operation, please also provide this information in Section E. Program Description.

b. Describe the community(ies) the school(s) serves:

Currently Booker T. Washington Elementary school serves students from the following different neighborhoods within the city of Suffolk. They are as follows: (1) South Suffolk; (2) Walnut Hill; (3) Cypress Farm; (4) Hosier; (5) Downtown Suffolk; & (6) Skeetertown. These communities in total have the highest percentage of Economically Disadvantaged (72%) students within the City of Suffolk.

- African-American/Black 89.43%
- Hispanic- 1.36%
- Caucasian/White-6.5%
- Native American-
- Asian/Pacific Islander
- American Indian-1%
- Two or More Races-1.63%

In 2021, the median household income of the 35.2k households in Suffolk, VA grew to \$81,883 from the previous year's value of \$79,899 (<https://datausa.io/profile/geo/suffolk-va/#housing>). 9.6% of the population for whom poverty status is determined in Suffolk, VA (8.89k out of 92.6k people) live below the poverty line, a number that is lower than the national average of 12.6%. The largest demographic living in poverty are Females 35 - 44, followed by Males 6 - 11 and then Females 25 - 34. The most common racial or ethnic group living below the poverty line in Suffolk, VA is Black, followed by White and Two Or More.

If the Lab School is going to have a specialized focus (e.g., Science, Technology, Engineering, Mathematics [STEM], at-risk students, special education, career and technical education, gifted education, classical education, etc.), please describe the focus:

The laboratory school with a STEM focus is dedicated to cultivating a passion for science, technology, engineering, and mathematics in students from kindergarten through 5th grade. The mission is to provide a rigorous and innovative STEM education that prepares students for the challenges of a technologically advanced and interconnected world.

Suffolk Public Schools seeks to develop a student-centered initiative to promote authentic learning with hopes of cultivating the development of the 5Cs (critical thinking, creativity, collaboration, communication, and citizenship) in students. This lab school is envisioned to foster deeper learning using student-driven application opportunities to enhance student experiences and promote real world connections and demonstration of knowledge.

Suffolk Public Schools' goal is to develop learners who are invested in their work, passionate about various subjects, and choose college and career pathways that are interesting to them. We will measure student performance through creative community-based projects, increased student achievement on local and state assessments, and acquisition of college and career readiness skills.

2. RELEVANT RESEARCH

Discuss any relevant research tied to the proposed student population and overall goal of the Lab School to demonstrate that it will improve student academic proficiency, mastery, college and career readiness, and long-term outcomes:

[Click or tap here to enter text.](#)

The proposed lab school will be grounded in strong evidence-based research on integrated STEM instruction, including hands-on and experiential learning to deepen understanding of STEM concepts, encourage curiosity, and center students in their own learning experience. Integrated STEM instructional approaches have been found to increase student knowledge and sense-making. Combining intensive professional development and inquiry-based instruction in elementary settings have shown gains in science content knowledge, science process skills, and science concepts (Cotabish, Dailey, Robinson, & Hughes, 2013). Instructional interventions that focused on helping students develop epistemic knowledge, or ways of understanding the process of knowledge building, have been found to increase student curiosity about how knowledge is generated (Schiefer, Golle, Tibus, Herbein, Gindele, Trautwein, & Oschatz, 2019).

The proposed lab school will utilize hands-on learning opportunities such as those provided in makerspaces (or sometimes referred to as FabLabs). Makerspace environments provide “potential for cross-curricular connections, collaboration, creativity, innovation, and learning” (Mersand, 2021). Maker activities will provide students opportunities to practice skills related to the 5Cs (critical thinking, creativity, collaboration, communication, and citizenship). The cross-curricular nature of these activities will provide students opportunities to explore concepts in real-world situations, since often in real-world applications, subjects overlap. Additionally, student engagement is affected positively in maker activities when the activities make “connections to problems youth identified as relevant in their communities” by increasing “motivation, persistence and interest in the activities” (Mersand, 2021). The maker activities often include “engineering, tinkering, circuitry, technology, crafting, computer programming, woodworking, fiber artistry, and a host of others.” (Mersand, 2021). Maker activities and the teaching practices used during maker activities provide students the opportunity to peer teach, which functions by valuing student expertise. “This...empowered the students to take ownership over the projects and encouraged students to self-regulate their learning” (Mersand, 2021). Due to the cross-curricular nature of these maker activities, often makerspaces have been added to school libraries with school librarians acting as facilitators. However, there are five areas in which information professionals do not feel that their education prepared them for: “new technologies and making tools, makerspaces, management, teaching and programming, and community advocacy and partnerships” (Mersand, 2021). Therefore, it will be essential that educators and informational professionals/school librarians are trained to facilitate makerspace activities in a way as to improve student academic outcomes.

John Hattie’s meta analysis of factors influencing student achievement, revealed that service learning has a .58 effect size and has the potential to accelerate learning and achievement (Hattie & Zierer, 2019). In addition to the impact in the classroom, these types of experiences also have the potential to influence a student’s sense of purpose, self-efficacy and their belief in their ability to influence the world around them. Both the tangible and intangible benefits make this an important innovation for the lab school to implement. Our work is grounded in the

literature which emphasizes that learning is the result of the students' own active and deliberate cognitions (Bransford, Brown & Cocking, 1999; Lambert, McCombs, 1998; Lucariello, et al., 2016; Murphy & Alexander, 2000; Vosoiadou, 2003).

The proposed lab school views teachers skilled in providing inquiry-based instruction that integrates STEM across the curriculum as critical to leveraging positive student outcomes. Professional development focused on integration of STEM across the curriculum have been found not only to boost teacher efficacy and pedagogical practices, particularly in the use of problem-based learning activities, increased student engagement, and opportunities for student reasoning (Anderson & Tully, 2020; Rajbanshi, Brown, Mucundanyi, Ozer, & Delgado, 2020). This investment in teacher development of integrated STEM instruction will help teachers gain the necessary knowledge and skills. Shernhoff, Sinha, Bressler, & Ginsburg (2017) have found that although many teachers are interested in integrated STEM approaches, they lack the sense of efficacy to do so. This requires a reimagining of teacher preparation and professional development.

Building a “grow your own” pipeline will further ensure rigorously prepared teachers prepared to provide personalized instructional approaches to address diverse learning styles, strengths, and challenges to strengthen positive student outcomes. This opportunity will engage future teachers in related work to help deepen their interest and skills (Virginia Department of Education, 2023a) and support their transition through teacher preparation programs and back into their home communities (Chu & Weems, 2023).

While the proposed lab school project will directly affect K-5 teachers and students, it will also function as a prototype for faculty collaboration with ODU and SPS. Our initiative is poised to make substantial contributions across several key areas: Preparing future-ready skills is one of our main objectives. Through the integration of STEM into education, we can significantly enhance classroom learning while also equipping the future workforce with essential STEM competencies. This approach can lead to profound improvements in students' computational thinking, problem-solving abilities, and digital literacy, ensuring they are well-equipped for a data-driven world. The creation of a vibrant community of STEM practitioners is at the heart of our initiative. This community will establish a dynamic platform for educators to exchange ideas, address challenges, and support each other's journey toward incorporating STEM activities in classrooms. Throughout the project, teachers will be encouraged to actively engage with and use the ODU faculty learning community. This community of practice will not only strengthen teachers' sense of belonging (Greenhow et al., 2022), but also provide a dynamic hub organized around the following areas: sharing insights, co-creating learning activities and resources, addressing logistical and technical concerns, and developing strategies to engage and inspire students (Lee et al., 2022). In doing so, we aim to foster both teachers' trust and commitment to the implementation of STEM activities and to clarify any misconceptions they may have (Lin & Brummelen, 2021). This methodology is expected to support the proposed lab school of a vibrant faculty learning community that can maintain teachers' commitment and sense of ownership while ensuring continuous peer feedback and support (Van Mechelen et al., 2022). We have existing interdisciplinary programs such as the newly established School of Data Science with over 85 faculty members (see <https://www.odu.edu/datascience/directory>) across various STEM disciplines to pilot the proposed faculty learning community.

G. COLLABORATION AND STAKEHOLDER INVOLVEMENT

1. Describe the involvement of local school divisions, community-based organizations, employers, teachers, and parents in the planning, development, and implementation of the proposed Lab School:

Suffolk Public Schools believes partnerships within the community will play a vital role in the development of our initiative to promote student learning and achievement through innovation. A community group that would be supported by this initiative is the Suffolk Public Library. The Suffolk Public Library's Strategic Plan 2021-2026 has goals to "Act as an Educational Spark" and "Building Tools to Facilitate Engagement and Connection" in the community. (Suffolk Public Library Strategic Plan, 19-20 SPL Report) Suffolk Public Schools partners with the library for summer reading programs, promotion of community events, and instructional resources. Additional, current partners include but are not limited to The Virginia Air and Space Center, Nansemond River Preservation Alliance, Sentara Health, Community Outreach Coalition, and Wolf Trap. These partners would serve the Lab School through field trip opportunities and outreaches.

2. If the Lab School is going to be in partnership with a local school division(s), please briefly describe the partnership:

Old Dominion University and Suffolk Public Schools (SPS) have a history of collaboration. These partnership initiatives include collaboration around teacher education and school leadership development, partnering with the ODU Tri-Cities Center to including the provision of facilities for SPS leadership meetings, juried student art exhibits and events, and program development that extends curriculum in the SPS *Project Lead the Way*, whereby students are linked to fields in biomedical engineering, additive manufacturing, and other STEM areas with experts from related fields. Old Dominion University and Suffolk have also collaborated on the university's MonarchTeach program, which prepares undergraduate STEM teacher candidates through robust, field-based experiences and strong emphasis on project-based and inquiry-based instructional methods. Throughout the program, MonarchTeach students support local school divisions, like Suffolk, in science fairs, summer camps, local internships at STEM-related institutions, and more. ODU's TTAC is also a very active partner with the SPS Special Education Department, helping to provide specially designed instructional (SDI) strategies to SPED and general education teachers.

H. SUSTAINABILITY

1. The goal of the Lab School Planning Grant program is to support public institutions of higher education; public higher education centers, institutes, or authorities; or eligible institutions of higher education as defined in the Tuition Assistance Grant Program, as

defined in § 23.1-628, as they develop and implement programs in order to create or improve capacity to operate and sustain a Lab School independently of long-term state funding, and in a manner that promotes quality, innovation, and program results.

2. Describe the Applicant’s capacity to implement a Lab School:

Old Dominion University has a number of robust programs already in place that will support this Lab School. We are collaborating with SPS to help enhance their Teachers for Tomorrow for high school program, we currently have in place MonarchTeach which is designed to develop ODU STEM teachers and STEM-focused elementary teachers, and are poised to effectively develop a professional development hub that provides STEM coaching for the ongoing development of teachers’ skills. Old Dominion also has research support for respective colleges and schools for assessing programs. Our evaluation team will monitor the lab school for design effectiveness and efficiency for student outcomes and long-term financial sustainability.

ODU and SPS have the physical space available to run the Lab School, and will continue to have this space available. Booker T. Washington Elementary School is a former high school that was converted to an elementary school. As a result, there are available spaces within the building (classrooms, resource spaces, library, etc. to support this program). The available space within the school allows us to engage in a variety of innovative learning approaches and leverage space for learning in ways that are not traditionally available in schools.

Further, given the approach to bring authentic learning into the classroom with varied learning methodologies, real-world experiences, technologies and resources, a key partner within Old Dominion University is the Tri-Cities Regional Higher Education Center. Tri-Cities Center actively serves and is in partnership with Suffolk Public Schools (SPS) in a number of ways, including the provision of facilities for SPS leadership meetings, juried student art exhibits and events, and program development that extends curriculum in the SPS *Project Lead the Way*, whereby students are linked to fields in biomedical engineering, additive manufacturing, and other STEM areas with experts from related fields.

The college Partnership Lab Schools with ODU Tri-Cities extends and deepens the relationships between and among the two organizations, with ODU Tri-Cities affording the following support:

- Classrooms & Building Space
 - o Collaboration rooms and classrooms outfitted with collaboration tools (tables, pods) that ignite interaction through shared, high-touch, hands-on projects and experiences, including:
 - § Innovative teacher preparation and adult learner/professional development
 - § Hands-on, interactive learning experiences and active engagement in (STEM) material
 - § Creative thinking and curricular design
 - o Meeting & Event space
 - § Varied professional environments for teaching and learning
 - § Office space/faculty pods for research and writing, with secure, high-speed ODU network connections

- § Open spaces for meetings, small events, and conferences
- § Student work space
- § Additional space for lab expansion

- Technology
 - o State of the art technology for digital learning and innovative teaching methodologies
 - o Maximized digital educational reach through shared and collaborative learning capabilities across schools/organizations
 - o Distance learning tools that connect SPS educators and students with those from other Lab School initiatives across the country, to: share and spark innovations, create increased awareness, share best practices, forge new partnerships and relationships, convene meetings, classes and conversations with others at a distance, expand opportunities for research
 - o High-speed network connections, wifi, platforms
 - o Exposure to and use of new technologies for innovation; teaching and learning tools
 - o Use of technology to support varied learning schedules, meeting teachers and students where they are
- Staff support, including;
 - o Registration systems for teachers and students
 - o Testing and assessment services
 - o Connections to ODU resources, internal/external partners, etc.
 - o Billing/budget functions
 - o Administrative Support

Opportunities to expose students to experiences through:

- Collaborations and partnerships with numerous regional stakeholders
- ODU Tri-Cities houses the Hampton Roads Biomedical Research Consortium (HRBRC), including state-of-the-art technology labs for demonstrations, and links to STEM professionals, guest presentations, and leaders in related fields.
- History of connections and events in STEM, including growing connections to STEM fields through ODU's Colleges of Engineering & Technology, Sciences, Arts & Letters, Education, School of Cybersecurity and other resources

3. Identify potential affiliates, partners, and describe potential sustainable funding sources:
Click or tap here to enter text.

United Way, Towne Bank, Communities in School, See other sponsors using this link :
<https://www.spsk12.net/Page/1014>

Suffolk Public School is proud to be associated with numerous partners in education, and you can find a comprehensive list of these valuable collaborators by visiting our dedicated link at

<https://www.spsk12.net/Page/1014>. As we embark on this transformative project, we are optimistic about garnering strong support from our community. However, it is important to note that, at present, we are in search of a major donor to contribute significantly to the initiative. Upon the approval of the grant and the realization of our vision, we are committed to identifying specific areas where we can actively solicit support. We believe that the success of this endeavor relies not only on the enthusiasm of our community but also on the collective efforts and contributions from various stakeholders.

4. Identify potential barriers to the planning process and possible ways to address them:

The planning process for establishing a laboratory school, especially with a specialized focus like STEM education, may encounter various barriers. Addressing these challenges is crucial for successful implementation. By proactively addressing these potential barriers, the planning process for a specialized laboratory school can be more resilient and better positioned for successful implementation. Continuous communication, community involvement, and adaptability are key elements in overcoming challenges.

Staffing and Expertise:

- Barrier: Difficulty in recruiting qualified educators with expertise in STEM education.
- Addressing: Provide targeted professional development opportunities to existing staff. Establish partnerships with universities or STEM organizations to attract experienced educators. Create mentorship programs for new teachers.

Community Support and Awareness:

- Barrier: Lack of community understanding or support for the specialized focus, leading to potential enrollment challenges.
- Addressing: Conduct outreach programs, workshops, and information sessions to build community awareness. Engage parents and community members in the planning process to garner support. Showcase the benefits of STEM education through open houses or STEM-themed events.

Student Recruitment and Diversity:

- Barrier: Challenges in attracting a diverse student population or difficulty in meeting enrollment targets.
- Addressing: Implement targeted recruitment strategies that emphasize inclusivity. Establish partnerships with community organizations to reach underrepresented groups. Provide scholarships or financial assistance to ensure access for a diverse range of students.

I. BUDGET OF DIRECT COSTS (WITH \$200,000 MAXIMUM)

1. Complete the budget table below outlining the financial plan of how the Planning Grant will be used in the effort to establish the proposed Lab School. The Planning Grant Term and use of funds may not exceed 12 months from the date of award.

2. Only include direct operating costs. Indirect costs and capital outlay costs are not allowed. Include a description of expenses that explains appropriateness of expenses based on the category descriptions shown below.
3. All expenses must be directly related to the proposed Planning Grant activities. Applicants are not guaranteed the requested award amount and any award may be proportionally adjusted according to Application's weighted Planning Grant Application Evaluation Rubric score and to reflect only those expenditures that are designated as permissible.
4. **Note: Any unspent Planning Grant funds remaining at the end of the Term must be returned by the recipient to the Department.**

CATEGORY	DESCRIPTION OF EXPENSES	FUNDING REQUESTED
1000 – Personal Services	Support for substitute teachers covering courses (\$5,000) Purchase release time and stipends for ODU researchers (45,000) Community and Industry stipends (\$6,500) Program management support (\$10,000)	66500
2000 – Employee Benefits		19000
3000 – Purchased/Contractual Services	Consultant Services (15000) SPS Curriculum and Lab School design development (47000)	62000
4000 – Internal Services		
5000 – Other Services	Travel to visit comparable schools and IALR conference	10000
6000 – Materials and Supplies	STEM supplies, curriculum materials, including makerspace materials (30000) Refreshments for workshops and design thinking sessions (7500) Marketing materials (5000)	42500
Total		20000*

*** Total cannot exceed \$200,000 with additional funding considered at the discretion of the Department on a case-by-case basis and in accordance with available funds.**

Please visit the [Virginia Department of Education OMEGA object codes universal guidelines](#) for a complete description of the budget categories.

APPENDIX: PLANNING GRANT APPLICATION EVALUATION RUBRIC

For the Applicant’s information, the following will be used as the Planning Grant Application Evaluation Rubric for this Application. Applicant does not need to complete this section.

AREA OF CONSIDERATION	DESCRIPTION	POINTS AVAILABLE
Targeted Student Population(s) and Relevant Research	Application proposes intention to serve at-risk students and/or offer a new, innovative model of instruction grounded in evidence-based practices to improve student academic proficiency, mastery, college and career readiness, and long-term outcomes.	30
Clarity of Program Description Goal, and Timeline	The program description and goal are clear and attainable. Indication of programmatic, operational, and infrastructural capacity to advance an application to launch a Lab School program, as well as launch a Lab School no later than the 2024-2025 school year. Additional preference will be given to applicants with an earlier Lab School launch timeline.	20
Sustainability	Evidence of institutional commitment to the viability of a Lab School in a manner that promotes quality, innovation, program results, and sustainability.	20
Collaboration	Evidence of engagement and collaboration with stakeholders, including local school divisions, community-based organizations, employers, teachers and parents.	15
Regional and Applicant Diversity	Evidence of diversity of location, with the goal of Lab Schools in each Superintendent region. For applicant diversity, preference will be given to new applicants in the event a concurrent applicant has previously received a Planning Grant during the current application period.	15

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