



The Citizen Science Lab at the Martin Luther King Jr. Reading and Cultural Center



EXECUTIVE SUMMARY

Founded in 2015, The Citizen Science Lab (TCSL) is a 501(c)3 nonprofit organization that has become a city leader in providing interactive STEM programming for the residents of Pittsburgh. Serving the Hill District neighborhood and South Hills region, TCSL provides an accessible space to connect young people, particularly those of color, with opportunities to increase STEM knowledge, academic achievement, and self confidence. TCSL incorporates 5 state-of-the-art instructional laboratories that provide hands-on exposure to life science, biomedical, robotics, and biotechnology education for students, teachers, biomedical startups, and adult citizens of the Pittsburgh region. Our programming has a focus on increasing black students' interest in STEM but is available to all of the citizens of Pittsburgh. Though the pandemic, TCSL quickly pivoted to providing engaging online science based programming making sure to reach and teach science to students all across the region and country to fill the educational gap during school shutdowns.

Through participation in our programs, citizens learn the common research techniques used in biology, technology, and computer science fields. These skills extend beyond the laboratory, and that knowledge is a requirement for a successful career in the sciences. Expected outcomes of TCSL programming include, but are not limited to, increased participant interest in biological, engineering or computer-based research, proficiency in common laboratory techniques, and the pursuit of a science or engineering career or major upon graduation. One of the most vital components of our program is that our students, many of whom are disproportionately underrepresented in science fields, are able to envision themselves in a science career.

The Citizen Science Lab plans to expand operations to accommodate growth and provide youth with full access to premier hands-on STEM programs by relocating to the Martin Luther King Jr. Reading and Cultural Center at 636 Herron Avenue in the Hill District. TCSL is committed to improving STEM opportunities in underrepresented communities by providing

hands-on enrichment activities for academic success and youth development. TCSL plans to officially open its new, state-of-the-art laboratory by the summer of 2025. Our overall goal is to raise a total of 5 million dollars for this project.

Objectives

The Citizen Science Lab works to ensure that every child has access to the hands-on, inquisitive experimentation that is designed to launch them and prepare them for a career in their chosen science field. Founded in 2015, The Citizen Science Lab is a 501(c)3 nonprofit organization that has become a city leader in providing interactive STEM programming for the residents of Pittsburgh. Originating in the Hill District neighborhood and South Hills region, TCSL provides an accessible space to connect young people with opportunities to increase STEM knowledge, academic achievement, and self confidence. TCSL's programming has a focus on increasing black students' interest in STEM but is available to all of the citizens of Pittsburgh.

Goals

TCSL's vision for the future is simple--that children from under-resourced and underrepresented fields are able to discover and explore a love of STEM that will allow them to be competitive in our ever-increasing science and technology-based world.

Located in the center of the revitalization zone, TCSL's new facilities at the MLK Cultural Center will provide a more accessible space to connect young people with opportunities to increase STEM knowledge. The new location will have the technical capacity to serve as a "Digital Learning Hub" for on-line learning when area students are unable to access the internet at home or in school. TCSL will work closely with an MWBE architecture firm to renovate this historical space into an environment that is optimal for a hybrid of in-person and cyber programming to accommodate any unforeseeable future shutdowns as a result of incidents such as the recent COVID-19 pandemic.

Our move to the Martin Luther King Jr. Reading and Cultural Center will allow us to not only continue our current level of programming, but will also provide the chance to expand our educational offerings to more children and schools. The benefits of the proposed space are numerous. One, the space is larger, which will allow TCSL more flexibility when creating programming. We will be able to have dedicated space for multiple programs and/or schools, therefore, eliminating our current space restrictions. We also have plans to incorporate food science into our outreach activities, including the creation of a greenhouse to provide organic food to the community. Two, the new location would be a dedicated space in the building exclusive to TCSL. The youth in the program would have their own space not only for program activities but would also have access to quiet spaces for homework/studying, in addition to a safe place for socializing. More importantly, the new space allows us to serve as a "Digital Learning Hub" in order to support the efforts of the Pittsburgh Public Schools in times of school closings. In addition, the acquisition of the new space will allow us to increase our offerings to the adults in

the community. The Herron Avenue location is also accessible via public transportation. Previously, in inclement weather, students had to walk to our location from the nearest bus stop. The new building is directly on a bus route.

This move benefits not only the students, but also the economic prosperity of the community as well. Our plans include the creation of a beautiful public arts space which will increase the visibility of the beauty inherent in our Hill District community. We envision The Citizen Science Lab at the Martin Luther King Jr. Reading and Cultural Center as becoming a vibrant, visible anchor of the revitalization occurring in the Hill District. Having a state-of-the-art STEM laboratory in the community sends a message that our city is not only investing in the youth of the area, but also in the neighborhood itself.

Our work will not only increase the participation of underrepresented populations in STEAM, but will also increase the visibility and connectivity of STEAM organizations throughout Pittsburgh's Hill District.