



Building Bridges, Inc.[®]

STEM PROGRAM CATALOG



2024



BuildingBridges^{INC.}[®]

TABLE OF CONTENTS



03

ABOUT BUILDING BRIDGES, INC.

04

WHAT MAKES US DIFFERENT?

06

OUR STEM PROGRAMS

11-12

OUR TEAM

13-15

OUR PARTNERS

ABOUT

BUILDING BRIDGES, INC



MISSION

Building Bridges, Inc. is designed to empower young girls ages 8-18 by exposing them to STEM (Science, Technology, Engineering, Mathematics) education and self-awareness strategies. This equips them with the proper knowledge and self-confidence to pursue what they are passionate about in the world of STEM and beyond. We believe that it is important to fill in the gaps by “building bridges” that will empower young girls to embrace creative thinking and endless possibilities.

VISION

The vision of Building Bridges, Inc. is focused on inspiring and encouraging young Black girls to practice positive self-affirmations propels them towards their purpose as empowered women in STEM. This vision embodies three core values: Expose, Equip, and Empower. Overall, we seek to solve lack of exposure and self-awareness for Black girls. Our goal is to be a part of the movement to radically change the gap in racial and gender diversity in STEM. We envision a future where young Black girls intrinsically believe they can be a part of the STEM field because they see examples of Black women in STEM all around them. We want to be a part of this future wave of Black women who feel propelled towards their purpose as empowered women in STEM.



WHAT MAKES US DIFFERENT?

We accomplish our mission through STEM programming which features uniquely designed STEM experiments that relate to real world careers.

What Do We Do?

Our STEM programs are hand-crafted by our team which provides the background of a science discipline, a hands-on experiment/activity, and career paths discussion. Our STEM experiments represent science disciplines such as biology, chemistry, food science, and engineering.

We pursue our vision by providing positive self-affirmations through a signature Building Bridges, Inc. bracelet that provides lasting impact.

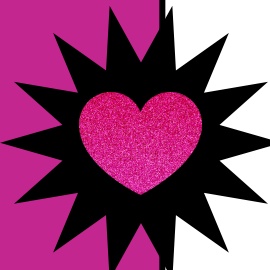
Program Specifics

Although our mission highlights young girls, **we also welcome young boys to participate. We don't discriminate against gender nor race because we want all youth to experience what we have to offer.** Most of our STEM programs can be offered either in-person or virtually. In-person STEM programs are delivered with bulk materials, and virtual programs are delivered with our STEM kits. The materials we use include safe, hypoallergenic ingredients portioned for specific experiment needs. All programs are fixated at a base rate for per youth which includes materials and service fees (presentation, teaching, and research). Most of our programs are suggested for grades 3rd-8th; however, we can alter any program to fit specific grades or ages. A minimum of 8 youth is required for requesting program services. A 3-week advance notice is also required to request our STEM program services. Requests can be made as a curriculum or individually. **Group rates are available for 25+ youth with an additional \$800 service fee.**



BUILDING SELF- AWARENESS THROUGH STEM CURRICULUM





Our “Building Self-Awareness Through STEM” curriculum shines light on issues that some youth may face, particularly young girls, regarding their appearance. This curriculum features four STEM experiments catered to skin and hair. Youth will learn the biology and chemistry involved in skin and hair products while making their very own to take home.



Soap Chemistry

Learning Objective: Exposure to the biology and chemistry involved with making soap and experiment with making soap bars

Requirement: Microwave

Science Discipline: Biology, Chemistry

Duration: 60 minutes

Environment: In-person & Virtual

Cost: \$85 per youth (in-person)

\$50 per kit (virtual)

Group Rate: \$1,125



The Science Behind Hair

Learning Objective: Explanation of the science behind hair with a hands-on activity to create shampoo and hair conditioner products

Science Discipline: Biology, Chemistry

Duration: 60 minutes

Environment: In-person & Virtual

Cost: \$90 per youth (in-person)

\$50 per kit (virtual)

Group Rate: \$1,250



Love the Skin You're In

Learning Objective: Introduction to the biology of skin, the importance of skin care, and creation of a sugar scrub

Science Discipline: Biology, Chemistry

Duration: 60 minutes

Environment: In-person & Virtual

Cost: \$85 per youth (in-person)

\$50 per kit (virtual)

Group Rate: \$1,125



Creative Lip Balm

Learning Objective: Introduction to the science of moisturizers and hydration needed for skin maintenance with a hands-on activity to create a lip balm

Science Discipline: Biology, Chemistry

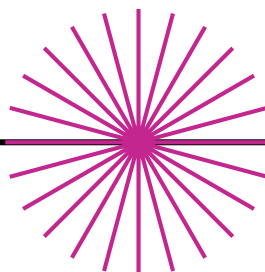
Duration: 60 minutes

Environment: In-person & Virtual

Cost: \$85 per youth (in-person)

\$50 per kit (virtual)

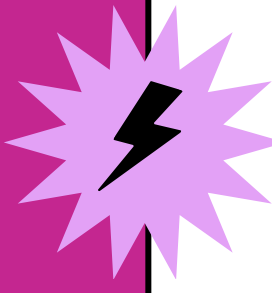
Group Rate: \$1,125





FOOD SCIENCE CURRICULUM





Our “Food Science” curriculum gives youth exposure to food through unique experimentation. This curriculum features four STEM experiments catered to making candy, slowing down oxidation, discovering DNA from fruit, and color changing chemistry for beverages.



Science of Candy

Learning Description: Introduction to the field of food science, food processing, and technical processes involved in candy and hands-on experience of making gummy candy

Requirement: Refrigerator

Science Discipline: Food Science, Engineering

Duration: 90 minutes

Environment: In-person

Cost: \$115 per youth

Group Rate: \$1,875



Apple Oxidation

Learning Objective: Knowledge surrounding how oxygen in the air causes oxidation with an experiment on how to keep apples and other fruits and vegetables from turning brown.

Science Discipline: Food Science, Chemistry

Duration: 60 minutes

Environment: In-person

Cost: \$65 per youth

Group Rate: \$625



Fruit DNA

Learning Objective: Exposure to DNA extraction with the use of household products to collect DNA from a piece of fruit

Science Discipline: Biology, Genomics

Duration: 60 minutes

Environment: In-person

Cost: \$65 per youth

Group Rate: \$625



Beverage Chemistry

Learning Objective: Experimentation using sports beverages to understand how the effects of baking soda can alter pH and cause a color change.

Science Discipline: Food Science, Chemistry

Duration: 60 minutes

Environment: In-person

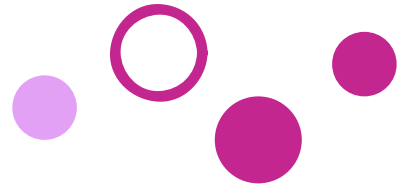
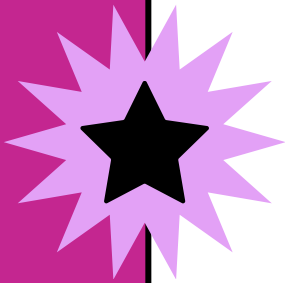
Cost: \$65 per youth

Group Rate: \$625



ADDITIONAL STEM PROGRAMS





Building Bridges

Learning Objective: Introduction to the engineering design process and the basic mechanics behind building bridges while designing bridges with arts and crafts with the ability to test bridges for durability and strength with weights

Science Discipline: Engineering, Architecture/Design

Duration: 75 minutes

Environment: In-person

Cost: \$60 per youth
Group Rate: \$500



Coding Dance Party

Learning Objective: Exposure to the fundamental aspects of coding and creation of dance animations with code using an online program

Science Discipline: Computer Science, Technology

Duration: 90 minutes

Environment: In-person & Virtual

Cost: \$60 per youth
Group Rate: \$500



Mold, Bacteria, Viruses...Oh My!

Learning Objective: Introduction to the science of germs along with proper hand washing and creation of hand sanitizer.

Science Discipline: Microbiology, Chemistry

Duration: 60 minutes

Environment: In-person

Cost: \$85 per youth
Group Rate: \$1,125



LED Popsicle Flashlight

Learning Objective: Exposure to the science of simple circuits and the flow of electricity through building a flashlight.

Science Discipline: Engineering, Circuit Design

Duration: 60 minutes

Environment: In-person & Virtual

Cost: \$80 per youth (in-person)
\$50 per kit (virtual)
Group Rate: \$1,000





Shy Brown, PhD

Founder/President

Dr. Shy is a graduate from Jackson State University (BS) and Tennessee State University (MS; PhD) with degrees in Biology and Biological Sciences. Dr. Shy is a trained biochemist and has specialized in areas of research such as exercise science, sports physiology, bioinformatics, immunology, and cancer biology. Her experience in working with youth encompasses Scientist in the Classroom with Vanderbilt University and Metropolitan Nashville Public Schools, Million Women Mentors Youth Mentoring, Mosaic Academy at PepsiCo, and numerous science-related community events. Dr. Shy is devoted to connecting with youth to help them discover their true identity through self-awareness. Her favorite self-quote is: "If I can be a stepping stone to help one student get to where they desire to go quicker than I did, then I have served my purpose as a human being".



TaAqua Campbell

Vice-President

TaAqua is a graduate of the University of Illinois at Urbana-Champaign with a degree in Agricultural and Biological Engineering. She has spent over 15 years in the food industry. TaAqua has a passion for giving back and has volunteered with mentor programs for the last 20 years. One of her favorite quotes by Charles F. Kettering is "We should all be concerned about the future because we will have to spend the rest of our lives there". That quote resonates with TaAqua's purpose in mentoring the youth in STEM as they are the future designers of this world, and they hold the vision to make this world better. TaAqua is dedicated to helping young people by instilling in them the encouragement and focus to realize their dreams.



Geraldine Smrcina

Treasurer

a native of Chicago, IL, is a CPA. Gerie attended the University of Illinois at Chicago where she earned a B.S. in Accounting and Psychology and her M.S.A. in Accounting and attended the University of Phoenix to earn her MBA in Global Business. Although she has a business background, she also is well versed in philanthropy taking her to various countries bringing her talents and volunteering with local and international programs over many years. Gerie is looking forward to mentoring young girls in STEM, encouraging them to take the leap and become the leaders that can advance this mission, while also helping the next generation of young women and future STEM professionals reach their academic goals.



Yulissa Luna Executive Assistant Intern

Yulissa Luna, is a rising third-year undergraduate student at the University of Chicago. With a major in Chemistry, Yulissa plans to pursue a career in medicine because helping people and making a positive impact on their lives is ultimately what drives her forward. She participated in exceptional STEM programs during her middle and high school years. Those opportunities paved a way for her to explore and deepen her understanding of science. Yulissa joined Building Bridges, Inc. because the idea of creating opportunities for young girls, just as she had received during her formative years, deeply resonated with her. She is committed to breaking barriers and overcoming challenges in her journey toward becoming a physician and as she continues to learn and grow, during her time at Building Bridges, Inc., she hopes to make a positive impact on the lives of aspiring young girls and encourage them to follow their dreams just as she is pursuing hers in chemistry and medicine.



Zara Ameli Executive Assistant Intern

Zara is a graduate from the University of Maryland with a degree in Public Health Science. She is currently working as a medical assistant in a Primary Care Practice and plans to pursue a career in medicine. She aspires to incorporate her knowledge in public health to have a more holistic approach in her practice in the medical field. Zara joined Building Bridges Inc. to help expand opportunities and continue working towards equity in the STEM field. During her time at Building Bridges Inc. she hopes to help young girls understand the variety of ways they can implement their passions into the STEM field and inspire confidence to pursue careers in this field.



Lalynn Sumandang Social Media Manager/ Graphic Designer

Lalynn is a seasoned social media manager and graphic designer with a three-year tenure in the industry. Her mission is fueled by a dedication to empowering young girls through STEM education and self-awareness strategies. Through her expertise in graphic design, Lalynn creates captivating visuals that inspire confidence and curiosity in STEM subjects. Her passion lies in equipping young minds with the knowledge and self-assurance to pursue their dreams within the world of STEM and beyond.





Our partnership with PepsiCo Research and Development is focused on increasing awareness and motivation of youth from underrepresented and socioeconomically challenged communities about the opportunities in the STEM field professionally. The STEM Access Program is focused on offering a multitude of experiences with a STEM focus from non-profit organizations and PepsiCo employee resource groups as an ecosystem of STEM opportunities.



As STEAM ambassadors for the Museum of Science Industry, we've partnered with the museum since 2019 to deliver STEM programs through their large STEM showcase events such as Science Works and Black Creativity. In addition, we've worked with them to deliver Jr. Science Cafes', career panels, youth summits, and STEM outreach research initiatives.



Our partnership with Big Brothers Big Sisters has exposed STEM career opportunities to their Littles of all ages. Since 2019, we've worked with this mentor-based organization to deliver numerous STEM programs from our catalog as well as career panel discussions.

OUR PARTNERS

girls
inc.

of Chicago

Our partnership with Girls Inc. of Chicago allows interaction with their group of girls for exposure opportunities through our STEM Programs. We've been in partnership with Girls inc. of Chicago since 2023. Since then, we've been able to provide corporate office fieldtrips through collaborations with Vital Proteins and PepsiCo.



Our partnership with the University of Chicago empowers UChicago undergraduates of all interests and backgrounds to apply their world-class education to a fulfilling internship opportunity through the Office of Career Advancement. Building Bridges, Inc. has joined a global community of employer partners to receive customized recruiting support and benefit from UChicago undergraduate talent. The internship scholars we select are part of the Jeff Metcalf Internship Program.

OUR PARTNERS



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