## WHAT IS STEAM?

SCIENCE ABCHITECTUBE/ TECHNOLOGY ABT ENGINEEBING MATHEMATICS

Education encompasses core subjects that prepare our youth to be successful and competitive in the 21st Century global economy. STEAM education fosters resilient students who become the architects, engineers, and construction professionals of the future.

### WHY STEAM?

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Kids learn problem-solving skills to become better thinkers. This makes them more prepared for job markets after graduation.

Demand for workers skilled in STEAM fields is continuously growing.

STEAM careers can offer higher pay at the entry level. Additionally, the gender gap in pay is less than in other fields.

STEAM fields are crucial for the future of our city and the world. The opportunities to innovate are endless!

# CONTACT

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For additional information, please visit www.nyc.gov/ddc or view our videos at vimeopro.com/nycddc/steam.

Bill de Blasio NYC Mayor Inter

Ana Barrio Interim Commissioner

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"I consider myself an engineer!" - Ivelisse, 6th grader, MS 22

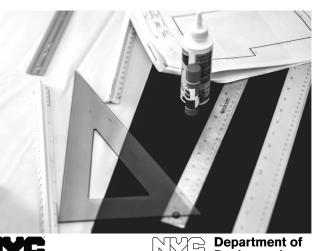
"I like the hands-on activities because I'm a kinesthetic learner." - Jonathan, 6th grader, MS 22

"Thank you DDC for instilling in me a desire to pursue a career in Architecture, Engineering and Construction and guiding me to a CTE school that can help me achieve that goal." -Wilfredo, 9th grader, Bronx Design and Construction Academy

"The DDC STEAM Initiatives is highly effective in cultivating curiosity...It's empowering these children because it's allowing them to think of themselves as engineers." -Monique Jarvis, LeAp Deputy Supervising Director

# COMMUNITY PARTNERSHIPS + **STEAM**

# INITIATIVES





### WHO WE ARE

The Department of Design and Construction created the STEAM Initiatives Division to establish an inclusive path for New York City's Youth into the architecture, engineering, and construction fields. Our outreach programs create valuable, hands-on opportunities for students to learn about the built environment and the resilient future of New York City as outlined by the Mayor's OneNYC Initiative. Our unique programs enhance student awareness of STEAM subjects and support them in pursuing these fields beginning in the middle school and continuing through high school, college, graduate school, and professional careers.



Deputy Commissioner Lee Llambelis (center) and members of STEAM Initiatives

**YOUNG ENGINEERS PROGRAM** | In an effort to address the Mayor's Middle School Afterschool Initiative, DDC, in partnership with the NYC Department of Education (DOE) and the NYC Department of Youth and Community Development (DYCD), provides a series of hands-on, STEAM-related curricula in schools and after-school programs. The agency's goal is to increase early learning opportunities for underrepresented students to learn about STEAM professions.

**MIDDLE SCHOOL SUMMER ENRICHMENT PROGRAM** | The Middle School Summer Enrichment Program is an extension of the Young Engineers Program and offers students additional project-based hands-on activities during the summer. Middle school students are introduced to various built environment curricula written and produced by NYC DDC, which engages students in a project-based learning approach to investigate and examine different architectural and engineering concepts.

**HIGH SCHOOL SUMMER INTERNSHIP PROGRAM** | The High School Summer Internship Program is designed for high school students interested in pursuing careers in architecture, engineering, building trades, public administration, budgeting and finance, business administration, or information technology. The program is structured to enable students to gain exposure to the many careers in the built environment and to learn about what it takes to build NYC.

ACE MENTOR PROGRAM TEAM 8 | The Architecture, Construction and Engineering (ACE) Mentor Program is a national program open to any high school student who is interested in learning about fields of Architecture, Engineering, and Construction Management—from contracting and engineering to architecture and landscaping. As a participant in the ACE Mentor Program, DDC staff mentor a team of students (DDC ACE Team 8), inspiring them to pursue these careers.

**COLLEGE SUMMER INTERNSHIP PROGRAM** | The College Summer Internship Program is an opportunity for matriculated college (undergraduate and graduate) students to gain valuable experience in the architecture, engineering, design, and construction management professions within a public service context. Students gain hands-on technical experience through specific field assignments and a mentoring relationship with senior level technical staff.

**OPPORTUNITY ACADEMY** | Opportunity Academy is a specialized year-long program that provides students with training in city specific procurement administration at LaGuardia Community College. The program is a joint project with the School Construction Authority (SCA). After a 10 week training students participate in a paid internship that can lead to employment with design and construction firms.

**TOWN + GOWN |** Town + Gown is a systemic action research program that facilitates partnerships between academics and practitioners on research projects aimed at making changes in practices and policies. There are two components—the experiential learning program component and the funded research component under the Town + Gown Academic Master Consortium Contract. Results are published in the annual review document, *Building Ideas*.

**SPECIAL EVENTS** | DDC STEAM organizes and participates in various events and workshops to highlight the importance of STEAM education and to provide additional access for students to opportunities within the DDC STEAM pipeline. Special events include, Introduce a Girl to Architecture, Engineering and Construction (AEC) Day, Meet the Builders, Take Our Children to Work Day, Career Days and other community-based events.