

The Future of Engineering and Construction



STEM
Program

The Metropolitan Transportation Authority (MTA) Construction and Development division has created a program to introduce students to STEM (Science Technology Engineering & Mathematics) concepts by relating them to major projects within the local community, its purpose, and its importance to the city.

The program was created as part of the MTA Metro-North Railroad Park Avenue Viaduct Replacement Project, which focuses on replacing the elevated steel structure that carries four tracks along Park Avenue between East 110th Street and the Harlem River Lift Bridge.

Student programs include in person and virtual school-based, age appropriate **activity day** for students ranging from K-12, **site visits**, **career day events**, and **brief presentations** to supplement each of the activities.

Activity Day Options

- Bridge building projects using a variety of materials
- Noise modeling with DIY headphones
- Sound measuring with a sound level meter mobile application
- Creating strong structures with shapes
- Exploring tension and compression forces

Potential Presentation Topics

- A Brief History of the Park Avenue Viaduct Replacement Project
- Meet the Park Avenue Viaduct Team
- Railroad Right-of-Way Safety Awareness
- MTA Arts & Design Program
- Introduction to engineering majors
- Future Careers in Engineering and Construction
- Use of Technology on the Park Avenue Viaduct

For more information, contact:
PAVoutreach@mtacd.org