



PROGRAM HIGHLIGHTS

- Programs are aligned to the **NYC Science Scope & Sequence**.
- **Common Core Learning Standards** performance tasks are available and aligned to NASA Aerospace Education Laboratory aviation programs.
- NYCCSSE programs can be differentiated for most student populations. Our facility is wheelchair accessible. Please email us at SpaceCenter@schools.nyc.gov so we can discuss your program needs.
- NYCCSSE offers single and multi-day class visits, week-long camps, extended in-school and after school programs in aviation, engineering, cybersecurity, rocketry, and robotics, as well as professional development for teachers.
- **Professional development workshops** and **institutes** are offered periodically throughout the school year.

To learn more and register for a program, visit us at <http://schools.nyc.gov/SpaceCenter>.

THINGS TO KNOW

- When you are confirmed for a class trip, a member of the NYCCSSE team will contact you about pre/post visit activities. For Challenger missions, you will need to facilitate a Pre-Mission Lesson with your students to introduce them to their jobs as astronauts and get them excited about their visit. A link with lesson materials will be emailed to you when your trip is confirmed.
- Teachers are welcome and encouraged to visit NYCCSSE before class programs. Please contact us at SpaceCenter@schools.nyc.gov or 212.608.6164 to schedule a time to tour the Center and meet with the NYCCSSE team.
- Each class trip is two hours long. Two programs can be combined to make a full-day experience.
- The minimum DOE chaperone ratio is 10:1, but more are welcome.
- If you plan to eat here, have students bring their lunches and we will store them for you. Please note, students will not be able to purchase food at the Center.
- Make sure you have travel directions printed out. Our location is a little tricky, so be sure the bus driver has clear directions.
- If your bus is running late, please call us at **212.608.6164** so we can plan accordingly.

NYCCSSE TEAM

Katherine Brown, Director - kbrown@schools.nyc.gov

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REGISTER NOW

Visit us at <http://schools.nyc.gov/SpaceCenter> to register for a class program.

PRICING FOR CLASS PROGRAMS

NYC DOE AND NYC CHARTER SCHOOLS

\$100.00 per class for half-day morning or full-day programs

\$50.00 per class for half-day afternoon programs

\$50.00 per Special Education Self-Contained class programs

PRIVATE SCHOOLS AND SCHOOLS OUTSIDE NYC LIMITS

\$450.00 per class

Payment for class trips may be made via FAMIS internal service, school check, or money order. Cash will not be accepted. FAMIS payment is accepted through mid-March. All payments are due prior to your visit.

Cancellation Policy – Your notice of cancellation is required two weeks prior to your scheduled visit to reschedule for an alternate date.

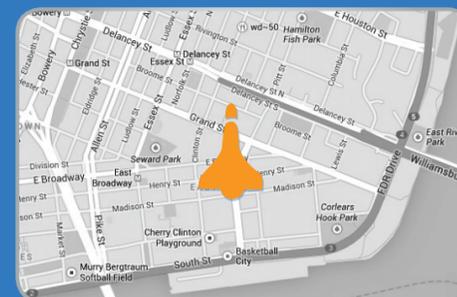
NEW YORK CITY CENTER FOR SPACE SCIENCE EDUCATION

220 Henry Street, New York, NY 10002
(enter on Montgomery St. between Henry St. and Madison St.)

T: 212.608.6164

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<http://schools.nyc.gov/SpaceCenter>



Adventures that Inspire Students and Teachers to Learn and Explore



BRING YOUR CLASS TO THE NEW YORK CITY
CENTER FOR SPACE SCIENCE EDUCATION!



The NYC Center for Space Science Education is operated by the NYC Department of Education, Division of Teaching and Learning, Office of Curriculum, Instruction, and Professional Learning.



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The New York City Center for Space Science Education (NYCCSSE) increases students' interest and excitement about science, technology, engineering, and math (STEM) through space and aviation science. Through hands-on activities that simulate real world experiences, students in grades K-12 apply math and science concepts learned in the classroom while working together to solve authentic problems. Students can take a simulated mission into space in the Challenger Learning Center or learn how airplanes fly in the NASA Aerospace Education Laboratory.



The **Challenger Learning Center** engages students in awe-inspiring, simulated space mission adventures that include a realistic **Mission Control** room and orbiting **Spacecraft**—designed with guidance from NASA. Students are transformed into astronauts, flight controllers, and scientists as they work collaboratively to solve problems, make decisions, and share in the thrill of discovery.

PRE-VISIT PREPARATION

To prepare for the mission, teachers facilitate a pre-visit lesson which excites students about their mission and introduces them to the experiments and research they will perform as astronauts and flight controllers.

THE MISSION

When students arrive at the Challenger Learning Center, they are greeted by the Mission Commander who will take them to the Mission Briefing Room. Here, they are given an overview of their mission objective and assignments to one of the eight mirrored teams—one located in Mission Control and the other in the Spacecraft. Transformed into astronauts and flight controllers, students rev up their imaginations and work together to complete one of the three missions.

SPACE MISSION: COMET

In this simulated space mission, students learn to work as astronauts onboard our Spacecraft and flight controllers in Mission Control as they conduct scientific experiments, maintain safe living conditions, and search the star fields in the solar system to locate and study a comet.

Program for Grades 4, 5, and 6

SPACE MISSION: MARS

After nine months in space, student astronauts are on final approach to Mars where they will take on the role of student flight controllers at Mars Mission Control. Teams must work together to track the weather on Mars, determine the best landing area, and make sure their mission is a success.

Program for Grades 7, 8, and High School

SPACE MISSION: EARTH

What happens when a satellite collecting data from Earth's surface malfunctions? Student astronauts onboard a Space Station and flight controllers in Mission Control will work to construct a new satellite to deploy into orbit, and collect data about how Earth's systems are being affected by human activity such as changes in land use and increases in carbon dioxide levels.

Program for Grade 8 and High School

ASTRONAUT TRAINING

JR. SPACE EXPLORERS

How do we explore space? Students use critical thinking skills to investigate basic science and math concepts while learning about NASA's programs.

Program for Grades K and 1

ASTRONAUT ADVENTURES

What is it like to live and work on the International Space Station? Students learn about the life of an astronaut through hands-on activities and interactive experiences in a Spacecraft, Space Shuttle Simulator, and Mission Control room.

Program for Grades 2 and 3

TOYS IN SPACE

Is it possible to jump rope in space? Students discover how objects behave in zero-gravity! After experiencing how toys work on Earth, students predict how they will behave in space and then observe astronauts using the same toys. This program can focus on either the Nature of Science or Forces and Motion.

Program for Grades 4, 5, and Middle School

ASTRONAUT AND AVIATION TRAINING

Our Astronaut and Aviation Training programs are specifically designed for Special Education Self-Contained populations. Contact us to create a program that will meet the needs of your students.

Programs for Special Education Self-Contained Classes in Grades 2, 3, 4, 5, Middle, and High School



Equipped with flight simulators, a wind tunnel, model airplanes, and specialized software, the **NASA Aerospace Education Laboratory (AEL)** provides students the opportunity to explore how airplanes fly through one of the following programs.

JR. AVIATORS

How do airplanes fly? Students will use our AEL to investigate the four forces that guide the science of aviation using experiential activities, model airplanes, and flight simulators.

Program for Grade 2 Forces and Motion Unit

AERONAUTICS: VARIABLES

Can your students make an FPG-9 pitch up and yaw left? In our AEL they will learn the language of pilots and the basics of airplane flight using model airplanes, NASA designed software, and flight simulators.

Program for Grade 5 Nature of Science Unit

AERONAUTICS: WEATHER

What kind of weather conditions do pilots need to be aware of when planning their flight? Students learn the basics of airplane flight and explore how weather affects flight by using a wind tunnel, model airplanes, and flight simulators.

Program for Middle and High School Weather Units

AERONAUTICS: FORCES AND MOTION

How do airplanes use the air we breathe to lift them off the ground? Have your students find out as they learn the basics of airplane flight and explore the four forces on an airplane by using flight simulators, a wind tunnel, and model airplanes. Students should already have a basic understanding of force diagrams before coming for this program.

Program for Middle and High School Forces and Motion Units



PROFESSIONAL DEVELOPMENT AND BEYOND THE SCHOOL DAY PROGRAMS

PROFESSIONAL LEARNING OPPORTUNITIES

NYCCSSE offers multi-day professional learning series throughout the year. Through these series, teachers are engaged in authentic experiences that challenge them to think critically about real-world issues and develop strategies to infuse these concepts, skills, and topics into their classroom practice. Professional learning at NYCCSSE demonstrates how experiential science can be integrated into instruction as a true extension of the classroom.

BEYOND THE SCHOOL DAY ENRICHMENT PROGRAMS

NYCCSSE offers after school, school vacation, and summer enrichment programs for students in Grades 5-8. After school programs are available in aviation, engineering, rocketry, and robotics. All after school programs take place at NYCCSSE and are run in partnership with a school.

NYC Aerospace Camp is offered during school breaks and in the summer. In a week packed with hands-on excitement, campers train as pilots using flight simulators in our AEL, build and program Mars rovers with EV3 LEGO robots, design, construct, and launch rockets, participate in activities that simulate astronaut training, and learn about the history of space exploration. These activities are all done in preparation for their ultimate mission: a simulated space adventure.