

This District offers within our K – 12 programs several initiatives for our scholars as well as teachers to develop skills to succeed in the areas of Science, Technology, Engineering, and Mathematics (STEM). This summer, we are offering the following STEM-related programs:

FIRST Lego Robotics & FRC Robotics Programming Summer Camp

The Robotics Summer Camp is a 2-week experience offered to students advancing to grades 5-12. Each summer, 50 students are selected to participate in the summer camp. The FIRST Lego Robotics Camp introduces students advancing to grades 5-8 to real-world engineering challenges. Students in this program have the opportunity to (1) design, build, test and program robots using LEGO EV3® technology, (2) apply real-world math and science concepts, (3) research challenges facing today's scientists, (4) learn critical thinking, team building and presentation skills and (5) participate in tournaments. Students who participate in the FRC Robotics Programming Camp, advancing to grades 9 - 12, are taught engineering basics along with engineering design techniques through the construction of working FRC robots. Visit <https://db.tt/rS5YxHEw> for a peek inside the program.

Program Dates: July 2, 3, 5, 9 – 12, 2018
Time: 9:00am – 12:30pm
Location: Rosa Parks Community Schools
Cost: none
Application: [Sent to Schools](#)



NJIT Early College Prep STEM Summer Camp

The Orange Public Schools and NJIT's Center for Pre-College Programs have joined forces to provide opportunities for Orange Public School students advancing to Grades 4-12 who are interested in the fields of science, technology, engineering and mathematics. This 5-week intensive summer initiative engages students in classroom discussions and lectures, laboratory experiments, demonstrations in advanced topics in mathematics, geometry, trigonometry, environmental science, physics, engineering, computer programming and application, and language arts. The district provides this opportunity annually for up to 50 qualifying students.

Program topics include:

- Women in Engineering & Technology (FEMME)
- Introduction to Chemical Industry in Engineering (IChIME)
- Explore Careers in Technology and Engineering (ExCITE)
- Chemical Engineering (CHEM-ENG)
- Fundamentals of Physical Sciences (FPS)
- Fundamentals of Physical Sciences (FPS) – UNITE
- Environmental Science and Engineering (ESEP)
- Pre-Engineering Program (PrEP)
- Aeronautical Engineering Program (AEP)



Dates: Monday, July 9, 2018 – Friday, August 3, 2018 (Monday – Friday)
Time: 9am to 3:30pm
Location: NJIT's Campus
Transportation: Provided from District (Leaves from OHS)
Cost: \$60 (non-refundable)
Application: **Closed**

MSU's Eco Explorers Summer Camp

The Orange Public Schools together with Montclair State University is offering a two-week summer program to students advancing to grades 6 to 8 who are interested in Environmental Science, Ecology and Computer Technology. The Eco-Explorers Summer program will provide students the opportunity to visit natural, notable sites related to the Passaic River and area ecology such as the Great Falls National Historical Park, area forests, streams and lakes as well as important environmental infrastructure such as Newark's Pequannock Water Treatment Plant.



Dates: July 9 – July 13, 2018 & July 16 – July 20, 2018, (Monday – Friday)
Time: 8:30am to 4:30pm
Location: Multiple Environmental Locations
Transportation: Provided from District (Leaving Rosa Parks)
Cost: none
Application: **Closed**

Summer Bridge Programs in Mathematics

The Orange Public Schools provides a strategic suite of intervention and enrichment experiences to its high school students to help strengthen cohorts of students and improve overall college- and career readiness. At the end of Grade 7, students are identified as candidates for our Algebra Ready program or our Algebra Summer Bridge. Algebra Ready students enroll in our formal, high school level Algebra I program. Algebra Bridge students, after completing a 5-week, 40-hour intensive summer program, can qualify for the same high school level Algebra I program. Since 2013-2014, we have doubled the number of 8th grade students taking Algebra I. We are pleased to report that 90% of our grade 8 Algebra I students successfully passed the Algebra I PARCC assessment.

Dates: July 2 – August 2 (M - Th); off on July 4th only
Time: Session 1: 8:30am – 10am; Session 2: 10:30am – 12pm
Location: Orange High School
Transportation: none
Cost: none
Application: *Students are predetermined for the Algebra Bridge Program*

All students advancing to grade 9 and accepted into the STEM Innovation Academy of the Oranges must attend a mandatory 2-week *Summer Gateway Camp* designed to prepare students for the 9th grade year in the areas of Mathematics and Engineering. This year, the camp runs as follows:

Dates: July 2 - July 13 (M - F); off on July 4th only
Time: 8:30am - 12pm
Location (tentative): STEM Innovation Academy of the Oranges
Transportation: none
Cost: none
Application: *Students are predetermined based upon acceptance into the STEM Innovation Academy.*