

# Reynoldsburg City Schools

## eSTEM Academy

*environmental Science, Technology, Engineering, & Math*



*A challenging learning community where students will experience science, technology, engineering, and math through an inquiry-based, student-centered curriculum.*

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### **What:**

One of 4 interest-based academies, the STEM Academy emphasizes science, technology, engineering and math, with a special focus on environmental science.

### **Who:**

The eSTEM Academy is open to students of all abilities. It will appeal to those who want to explore a future in the STEM fields, but the skills students learn here will propel them in virtually any area of study or work.

### **Why:**

The mission of the eSTEM Academy is to create a challenging learning community where students experience science, technology, engineering and math through a variety of disciplines. Students are engaged in innovative thinking and problem solving, while examining the environmental and social issues of current and future generations.

### ***Common Features***

RHS academies will provide intentional personalization and academic planning. Every academy will include:

- Learning from experts through shadowing, internships, mentorships, cooperative work and community volunteerism.
- A Capstone Experience that requires students to complete a culminating project during their senior year.
- Enriched, AP, dual-credit, PSEO, Flex Credit and online learning.
- Special education supports and services.
- Access to high school athletic and music programs.

### ***Special Features***

- Engineering Design Class required
- Participation in Math & Science classes 9-12 required
- Inquiry Focus (Problem Based Learning)
- Member of the Ohio STEM Learning Network
- Recipient of Ohio STEM Grant

## Reynoldsburg High School eSTEM Academy will be unique in a variety of ways.

### Here are just a few:

#### ***Our business, university and community partnerships:***

Partners have donated more than 500 hours sharing their expertise and experience. Partners will continue to act as mentors and resources for both students and teachers.

Partners include Battelle Memorial Institute, City of Reynoldsburg, DELL Inc., Dynalab, Five Seasons Landscape Design and Maintenance, Granville Studio of Visual Arts, KnowledgeWorks Foundation, MAD Scientists, Mechanical Innovations, Inc., Ohio Dept. of Agriculture, Ohio Dominican University, Ohio EPA, Otterbein University, Reynoldsburg Area Chamber of Commerce.

***Our “inquiry-based” instruction:*** Students will learn by finding answers rather than memorizing them. They will develop life-long skills for problem-solving and thinking critically.

***Our internships:*** Students will be mentored by professionals in science, technology, engineering and math and gain real experiences in those fields.

***Our integrated design:*** Like scientists, engineers and artists, students will rely on a design process (hypothesize, test, improve, report) in all subjects.

*“It is today we must create the world of the future.”*

*~ Eleanor Roosevelt*

## Potential Courses

### Science

- Science I (Physical)
- Science II (Life)
- Chemistry
- Flora & Fauna
- Environ. Science
- Environ. Forensics
- Environ. Physiology
- Physics
- Agriculture Science
- Biotechnology
- Population Genetics

### Math

- Geometric Algebra (Alg. I & II & Geo)
- Pre-Calculus
- AP Calculus
- Integrated Statistics
- Reasoning & Proof
- Statistics Trigonometry

### English/Social Studies

- Anthropological Perspectives 1: 1500-1900
- Anthro. Perspectives 2: 1900-1980
- Anthro. Perspectives 3: 1980 – present
- Ethics and Rhetoric

### Engineering/Art/Design\*

- Engineering Design

\* CORE courses will be offered in an Inclusive Enriched class format.

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