

MARPLE NEWTOWN STEM ACADEMY HANDBOOK



THINK. DESIGN. BUILD.

As a STEM Academy student, you are becoming part of a community that values curiosity, leadership, innovation, and perseverance. Throughout your high school experience, you will explore challenging coursework, collaborate with peers, engage in real-world learning experiences, and prepare for future opportunities in STEM and beyond.

We are excited to see the impact you will make over the next four years.

Marple Newtown High School Principal

Mr. John Beltrante

STEM Academy Faculty Advisors

Mrs. Christine Roy
Mrs. Shannon Blessington
Mrs. Elizabeth Landes

STEM Academy Administrator

Mr. Anthony Prinzo

**Supervisor of Secondary Teaching
& Learning: STEM**

Dr. Lauren Giovanisci

<https://sites.google.com/mnsd.org/mnhsstemacademy/home>



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Dear Student,

Welcome to the 2026-2027 school year and thank you for being a member of the STEM Academy. As a STEM Academy student, you are part of a community that values curiosity, leadership, innovation, and perseverance.

Throughout the year school, you will be enrolled in course work that supports your growth in the STEM fields of study. Ninth graders, you will begin with Design Thinking I and sophomores will continue with Design Thinking II. In addition, throughout high school you must take a minimum of four Advanced Placement (AP) courses, including at least three in computer science, mathematics, or science. It is also encouraged to enroll in other science, math, computer science, or BTE courses as your schedule allows. College Board's AP Capstone Diploma is also promoted. Information regarding the program can be found on our [website here](#).

A reminder that you are encouraged, though not required, to participate in the Academy's field excursions that deepen learning, build real-world skills, and broaden perspectives.

We are excited to begin another school year in our program that will challenge you, support you, and prepare you for future academic and professional success.

If you have questions, please contact your school counselor, a STEM Academy teacher advisor or Mr. Prinzo, MNHS Assistant Principal and STEM Academy Administrator.

Best of luck in 2026-2027 school year.

Sincerely,
MNHS STEM Academy Team



STEM ACADEMY APPLICATION PROCESS



Complete the STEM Academy Application between December 1, 2026 and January 8, 2027.

The application will be available on the STEM Academy Website.

STEM ACADEMY CONSIDERATIONS

- Maintain a 3.0 average (or better) in all classes.
- Uphold high moral and behavioral standards.
- Participation in a group interview.
- For both current and non-MNSD students the following will be reviewed and considered:
 - Standardized tests (eg. PSSA, Terra Nova, Keystones)
 - IXL Classroom Diagnostic Assessments
 - Class Levels
 - Discipline Record
- For current MNSD students: performance on MNSD's Mathematics, Science, and English/Language Arts courses will be reviewed and considered.
- All of the above will be reviewed and acceptance/denial emails will be sent by February 26, 2027.

Marple Newtown School District is an equal opportunity employer and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.



STEM ACADEMY EXPECTATIONS

Being a member of the STEM Academy means joining a community of students who are committed to academic excellence, innovation, collaboration, and leadership. Students accepted into the program are expected to actively engage in both the academic and experiential components of the Academy.

ACADEMIC EXPECTATIONS

Students in the STEM Academy are expected to:

- Successfully complete Design Thinking I during freshman year
- Successfully complete Design Thinking II during sophomore year
- Maintain a 3.0 cumulative unweighted GPA
- Students must maintain a cumulative grade of B or higher in all STEM courses.
- Complete a minimum of four Advanced Placement (AP) courses
- Complete at least three AP courses in computer science, mathematics, or science
- Maintain strong academic performance throughout high school
- Demonstrate responsibility, initiative, and academic integrity
- Challenge themselves through rigorous coursework and meaningful learning experiences
- *Students are also encouraged to pursue the College Board AP Capstone Diploma Program when appropriate for their academic goals.*

At the end of junior year, each student's academic progress will be reviewed. Students unable to meet STEM Academy requirements, including the required AP coursework, may be removed from the Academy.

PARTICIPATION EXPECTATIONS

The STEM Academy extends beyond the classroom. Students are encouraged to actively participate in Academy-related opportunities that promote collaboration, innovation, and real-world learning.

Examples of STEM Academy experiences may include:

- STEM field trips and college visits
- Guest speakers and industry panels
- Fundraisers and community events
- STEM competitions and showcases
- Career exploration opportunities
- Collaborative STEM activities and workshops

Participation in these experiences helps students build professional skills, expand their perspectives, and strengthen connections within the STEM community.

CHARACTER REQUIREMENTS

Professionalism matters

Being a STEM Academy student means representing the program with integrity. Students are expected to:

- Follow all MNSD school board and MNHS handbook policies
- Demonstrate honesty and professionalism
- Show respect toward peers, staff, and community members
- Avoid major disciplinary infractions and suspensions
- Maintain behavior that reflects positively on the Academy

Character requirements of the STEM Academy extends beyond the classroom and includes all school-affiliated events.

RETENTION, DISMISSAL, AND APPEALS

Retention: Students must adhere to the academic expectations and character requirements listed above in order to retain their membership in the STEM Academy.

Dismissal: Students who do not meet the academic expectations or behavior requirements will be dismissed from the STEM Academy through the following process.

- Level 1: Concern Notification – Initial concern communicated to the student and/or parent/guardian.
- Level 2: STEM Academy Improvement Plan – Secondary communication to the student and parent/guardian of the concern, review available supports, and put a timeline in place for improvement.
- Level 3: STEM Academy Removal Review – The STEM Academy administrator or faculty advisor/teacher will notify the student of their removal from the Academy and reason why.

****Immediate movement to Level 3 may occur in specific cases (e.g., cheating, plagiarism, discipline infractions that lead to a suspension, not meeting academic expectations by junior year).*

Appeal Process: If a student is removed from the STEM Academy, they have two opportunities to appeal the decision.

1. A student may appeal a decision of the removal from the STEM Academy to the STEM Academy Faculty Council.

Appeals must:

- Be submitted in writing to the STEM Academy advisors/teachers within five (5) school days of removal notification.
- Include a summary of the incident and any relevant information, evidence, documentation, or extenuating circumstances for consideration.
- This student may be asked to appear for an interview with the faculty council which will then review the information presented and determine one of the following outcomes within five (5) school days of appeal:
 - Return to good standing
 - Continuation of improvement plan
 - Uphold removal

2. A student may then appeal the STEM Academy Faculty Council's decision of removal to the Administrative Council.

Appeals must:

- Be submitted in writing to the STEM Academy administrator and school Principal within five (5) school days of Faculty Council decision.
- Include a summary of the incident and any relevant information, documentation, extenuating circumstances for consideration, reason for requesting administrative review, and evidence pieces to be considered (e.g., character references, reflections, etc.).
- The appeal will be reviewed by a committee consisting of district administrators. The student may be asked to appear for an interview. The committee will issue a decision within five (5) schools days of receiving the appeal. The committee's decision will be final.

JUNIOR INITIATIVE

STEM ACADEMY REQUIREMENTS



All juniors at Marple Newtown High School participate in the Junior Initiative Project, a career exploration experience designed to help students investigate future academic and professional interests.

As part of the standard Junior Initiative Project, students:

- Attend two in-person guest speaker presentations
- Complete a one-day job shadow experience in a career field of interest
- Develop a presentation summarizing their experience and reflections
- Present their project within one of their academic classes

STEM SPEAKER REQUIREMENTS

At least one of the two required guest speakers must be selected from the approved STEM Academy Speaker List provided by the Academy. The second speaker may be selected based on the student's individual interests.

STEM JOB SHADOW REQUIREMENTS

The required one-day job shadow experience must be completed in a **STEM-related field**. Students are encouraged to explore careers connected to science, technology, engineering, mathematics, healthcare, research, design, or other innovation-focused industries.

STEM CONFERENCE DAY

STEM Academy students will present their Junior Initiative projects during a dedicated STEM Conference Day rather than within a regular classroom setting.

This event will allow students to share their experiences with fellow STEM Academy students while developing professional presentation and communication skills. The day will also include additional STEM experiences such as a keynote speaker, interactive activities, networking opportunities, and community-building events.

STEM SENIOR EXPERIENCE

One of the goals of the STEM Academy is to provide students with meaningful real-world experiences that connect classroom learning to future careers and opportunities.

As part of this vision, STEM Academy seniors may have the opportunity to participate in a special STEM-focused senior experience. Participation in this trip is voluntary, and families are responsible for the associated costs. The STEM Academy will offer fundraising opportunities throughout students' four years in the program to help offset expenses.

2027 Senior STEM Experience



Walt Disney World Resort

The Class of 2027 will participate in the Imagineering Program at Walt Disney World Resort, where students will explore the intersection of STEM, innovation, engineering, design, and creativity through hands-on educational experiences.

The long-term goal of the Academy is for each graduating STEM cohort to have the opportunity to participate in a comparable senior experience that highlights STEM applications in the real world.

PARENT & FAMILY INVOLVEMENT

WELCOME STEM ACADEMY FAMILIES

Welcome to the Marple Newtown High School STEM Academy community! We are excited to partner with you in supporting your student's journey over the next four years.

Family involvement helps us create meaningful, real-world experiences for our students, and we invite you to get involved if you are interested.



GET INVOLVED

If you have experience in a STEM-related field, opportunities may include:

- **Serving as a trip nurse** for STEM field experiences (if needed)
- **Hosting students** for Junior Initiative or Senior Project experiences
- **Participating as a guest speaker** for STEM events or Conference Day
- **Sharing career insights** and real-world experiences with students

GET CONNECTED

Please scan the QR code and complete the form if you are interested in getting involved.

