

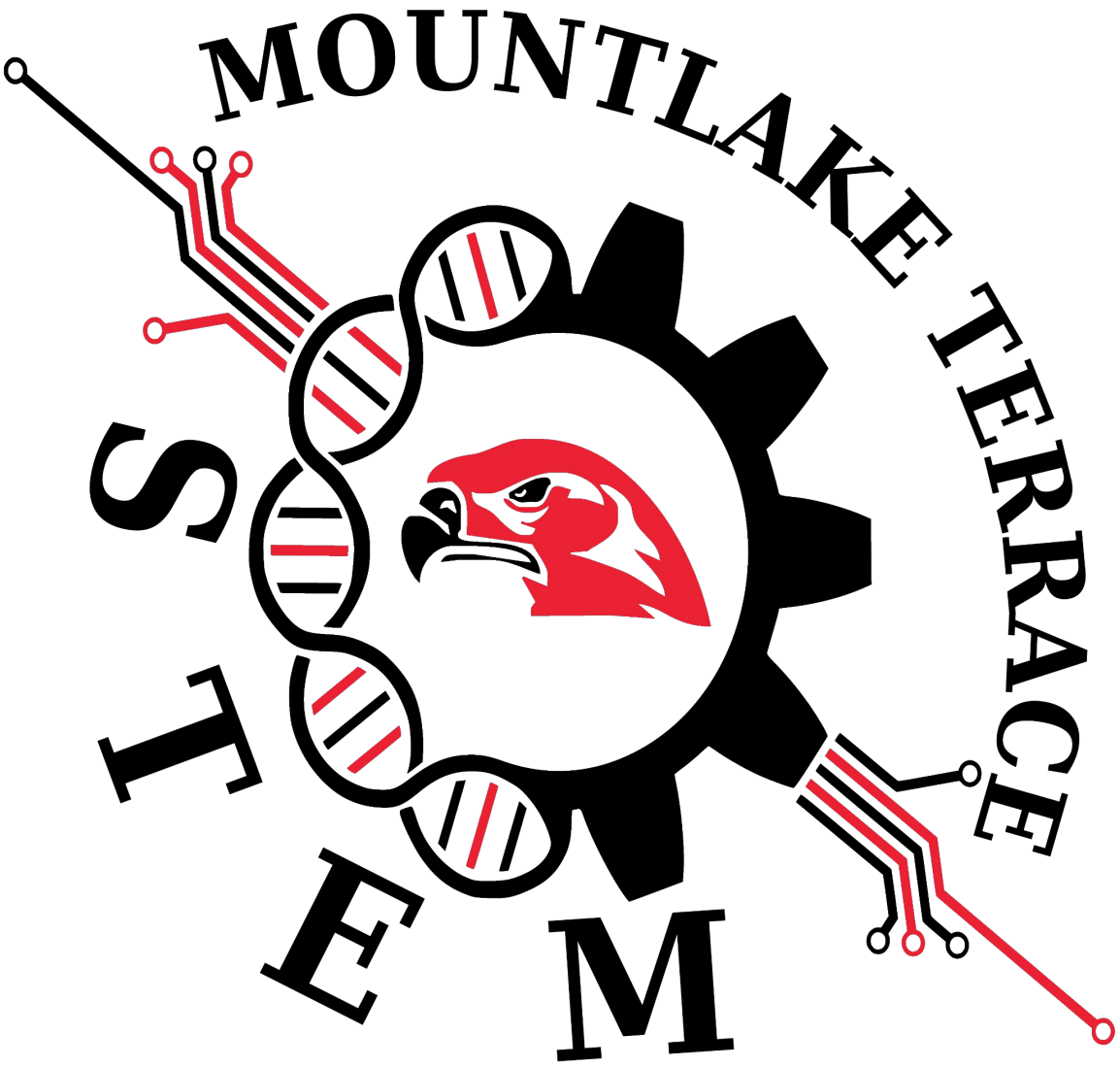
STEM Magnet Program

At Mountlake Terrace High School

Imagine a world…

- Where you operate $120,000 machines before you can drive
- Where the instructor lets you play games in class….. IF you design them yourself
- Conduct original scientific research, with the support of experts in the field
- You turn food borne bacteria into nightlights
- Students are challenged to be independent, creative, and see failure as a necessary step to success
- HS students graduate with college transcripts full of relevant, transferable credits
- Curriculum is guided by an advisory committee of industry representatives

Imagine a world...



Tonight's Agenda/Introductions

Part 1: 6:00- 6:30 Introduction and Student Perspective

- Overview of program
- Student perspectives
- First courses in the program

Part 2: 6:35 - 7:10 Student Activities & Parent Information

- Parents: Nuts and bolts of the program
- Students: STEM activities in the HUB

Part 3: 7:15 - 8:00 Lab Tours and Pathway Information

- Lab tours led by STEM Club Students

MTHS STEM Program

- **Four-Year Program with Engineering, Math and Science and all other required HS Classes**
- **Three Pathways for Students**
  - Aerospace
  - Computer Science
  - BioTech
- **Strong STEM Clubs/Community**
  - After school clubs
  - Community Building events
  - Interaction with local industry
- **College Credits and National Recognition**
  - Credit Partnerships with UW, Shoreline CC & Edmonds CC
- **Inspire, Engage, and Prepare Students for the World of STEM**

Diploma Options:

	Foundations (IED+STEM12)	STEM Electives	Math	Science
Exploratory	YES	*Explore!* Any Two STEM Classes	3+ Credits	3+ Credits with more options
Honors	YES	*Dive Deep!* Two aligned STEM Classes	4.0 Credits mostly honors	4.0 Credits rigorous Sciences

9th Grade - Taking Algebra 1

Computer Science Foundations

- Progression from block-based to text-based
- Write programs in Python
- Team project/ Story Creation



Robotics 1

- Block and text-based programming languages
- Hardware, Sensors, wiring
- Teamwork/Problem Solving/Troubleshooting

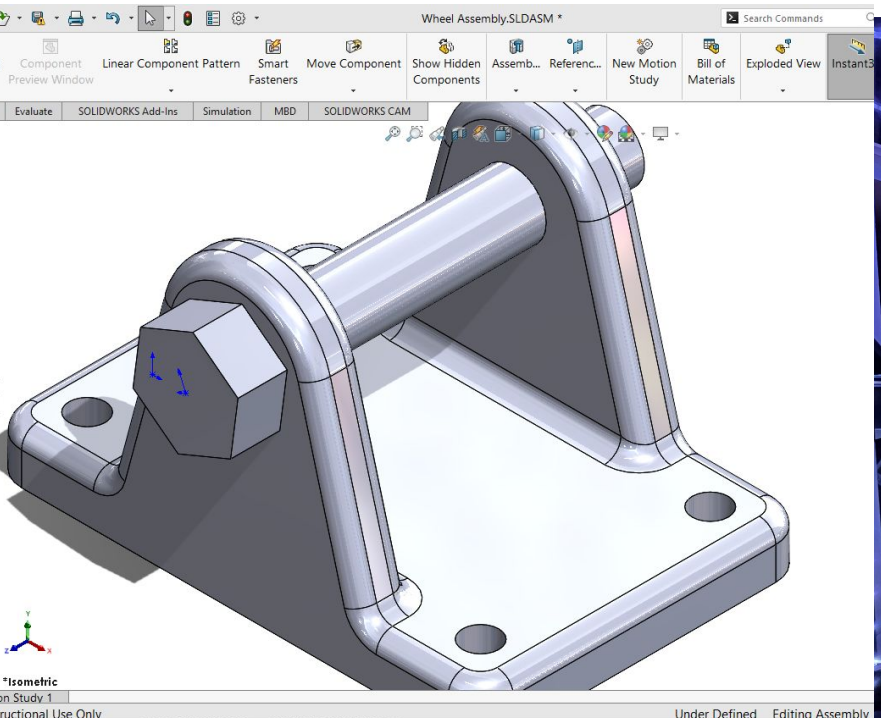


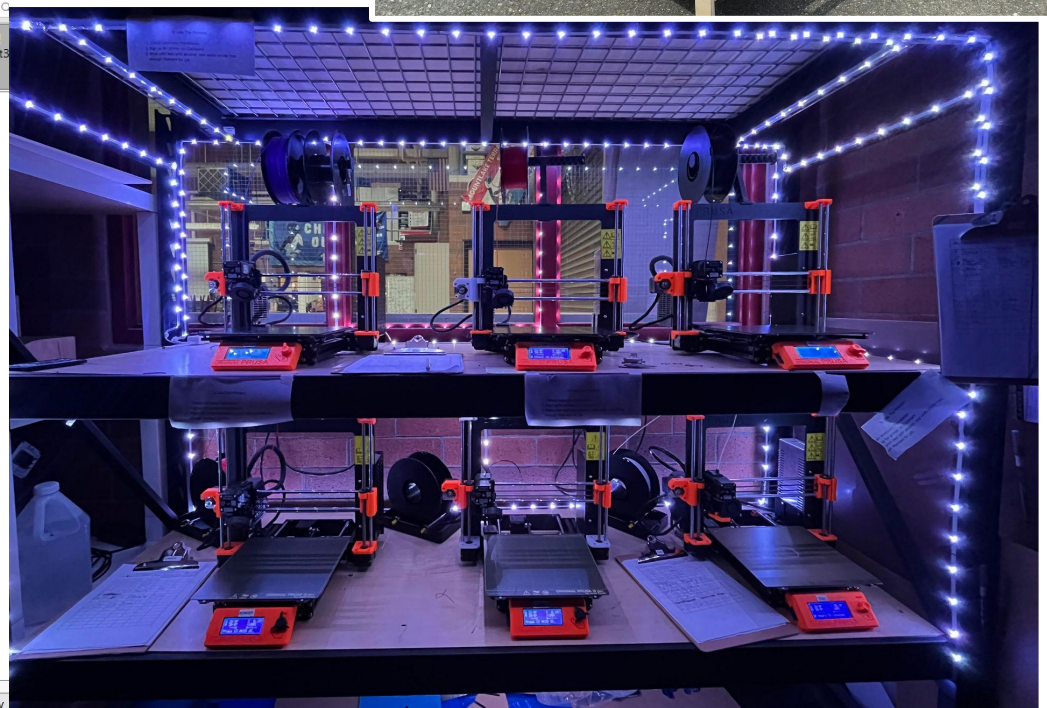
9th Grade - Taking Honors Geometry +

Intro to Engineering Design

- Foundation of STEM Program
- Focus on Creativity
- Community building
- “21st century skills”







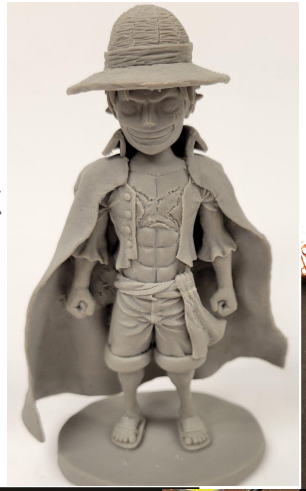
Art/Manufacturing at Terrace

CTE (Tech) ART

Industrial Arts

Manufacturing Innovations

- Sheet Metal Work
- Glass Lampwork
- Lapidary Stonework
- Plastic & Casting
- Mold Making
- Metal Casting
- Torch Work



Digital Arts

Photography (I & II)

Graphic Design (I & II)

Video Production





Fine Art

Painting & Drawing 1&2

Clay Design 1&2

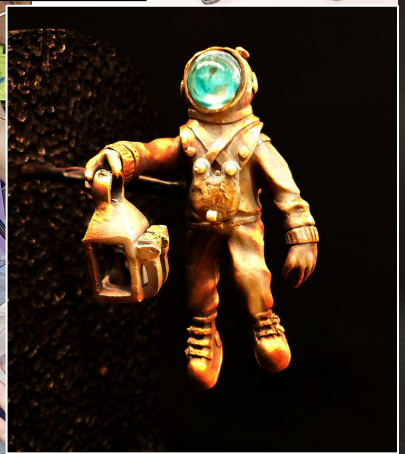
AP Studio Art











Music at Terrace









Student Experiences



Student Experiences

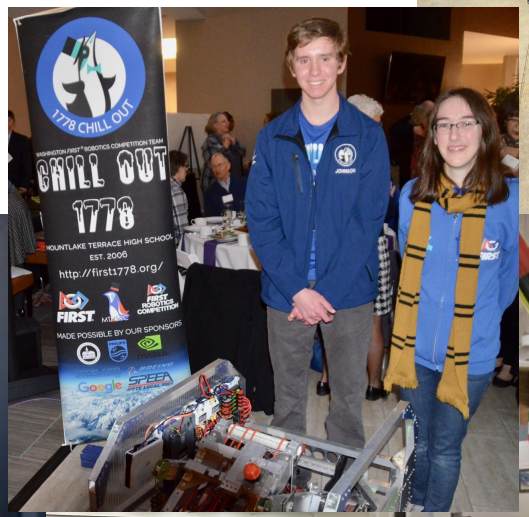
Clara Bakkane: CS Courses, Girls Who Code

Zach MacDonald: Aerospace and Engineering

Elliot Willwerth: Biotechnology and HOSA







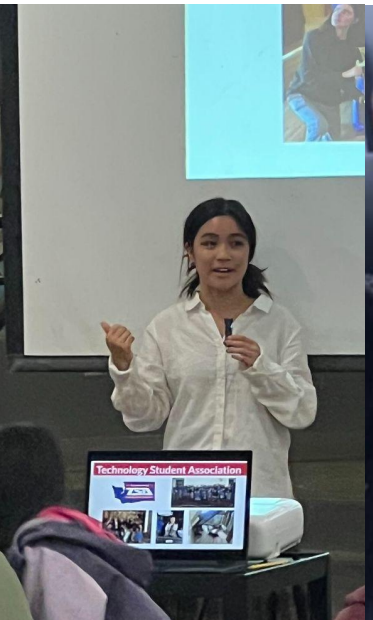








Photo by: David Johanson Vasquez © All Righ
STEM EXPO MLTHS Edmonds School Distric

Career Tech Student Organizations

TSA: Largest in State, 1st in Coding, 2nd in Structural Design & Essays on Tech nationally

HOSA: 1st in Clinical Laboratory Science, 1st and 4th in Forensic Science, 5th in Biotechnology; national qualifiers

FRC: 2 Worlds Qualification

VEX: State Qualifier

Rocketry: Four+ NAR Level 1 High-Power Rocketry Certifications

Girls Who Code: Girls Who Code is on a mission to close the gender gap in technology and to change the image of what a programmer looks like and does.

Section 2: Time to explore!

MTHS Beyond STEM









MTHS Humanities



Humanities @ Terrace

- Honors as a block class in grade 10 with combined English & Social Studies
- Gives students more time with the subject and cross-disciplines for deeper understanding of literature and history and how they are interconnected

Journalism (CTE 7th Period)

- Website building
- Adobe Suite (Indesign, Illustrator, Photoshop, etc.),
- Art and graphic design
- Yearbook (layout & design)
- Photography (also separate photography classes)
- Only school in district with a print and web program
- Awards: *National & *Local
- No prior experience required

Creative Writing Club & Literary Magazine

- We provide a creative outlet for all forms of art
- Submissions are open to ALL students @ Terrace



MTHS Science Department

Science Classes at MTHS:

- Dual credit / Advanced Placement courses in:
  - Chemistry/Honors/AP
  - Biology/Honors/AP
  - Physics/AP
  - Anatomy and Physiology (dual)
  - Biotechnology (dual)

Also offered

Earth and Space Physical Science

Zoology Astronomy Environmental

Science Curriculum Highlights:

- Emphasis on a "hands-on approach"
- Advanced lab grade equipment:
  - Pipettes
  - Spectrophotometers
  - DNA analysis/Gel electrophoresis
  - PCR machines
  - Dissection

Goals:

Prepare students for college

Teach modern ideas

Teach methods used in advanced scientific laboratories

MTHS Math Department

Our Department's Focus: Making one's thinking clear to others while developing mathematical, communication, and collaborative skills

Other Notes:

- Secondary Emphasis: not preparing students for a test, but for **work with others**
- True Learning: By students who are proficient, our math SBA results are **top** in Edmonds School District
- Flexibility: Students can jump immediately into Honors (or non-Honors) classes

  ...all the way up to **AP Calculus AB and BC, AP Stats**

College Credit in High School









- 10+ AP course options - college credits can be earned through high end of course exam performance.
- 18+ CHS course options - college credit earned by passing the class.
- Running Start is compatible with STEM Program and allows for accelerated college credits.

College Credit in High School

- AP Chem Results (52)

  3-26, 4-15, 5-2 **(83% Passing)**
- AP Physics Results (35)

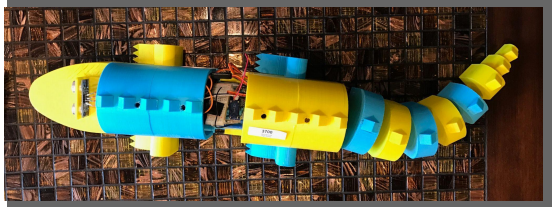
  3-4, 4-14, 5-14 **(91.4% Passing)**
- AP 2024 Bio Results (23),

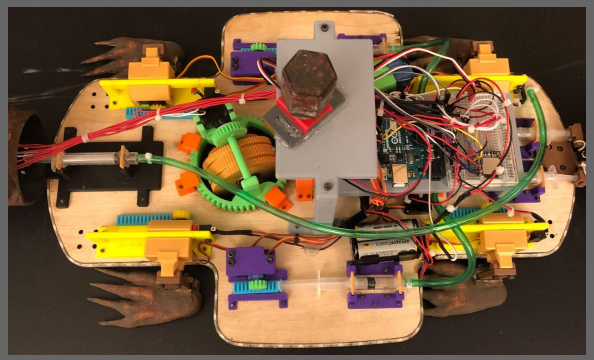
  3-9, 4-6, 5-4 **(82.6% Passing)**
- AP Computer Science: AP CS Principles (35)

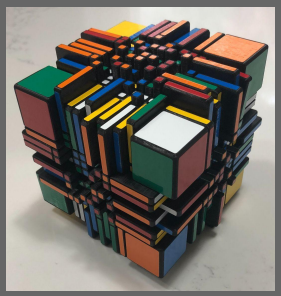
  3-13, 4-8, 5-3 **(68.6% Passing)**
- AP Computer Science A (23),

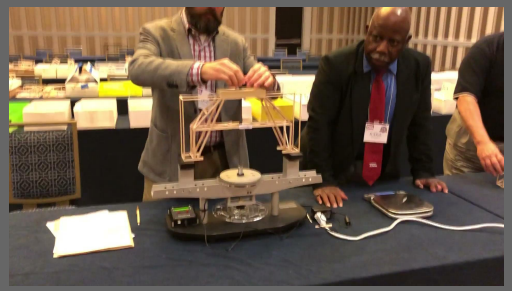
  3-6, 4-5, 5-6 **(77.3% pass rate)**
- CHS free AND transferable college credits
- Among the highest passing rates in the state

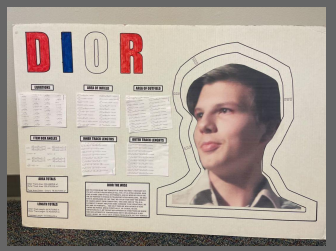
Alumni: Reiden Chea












AP: Mins for Maxes

Sophomore Year:
AP World: 3
AP Chem: 5
AP CSP: 3

Senior Year:
AP Bio: 4
AP CalcAB: 5
AP Gov: 3

Junior Year:
AP US: 3
AP Stats: 3
AP CSA: 4
AP Lang: 3



Total UW Credits: 69 ($18,092 @ $262.20/Credit)
Toss in CHS* → 90 credits = JUNIOR standing on entry

*College In the High School is now free!

English 12 STEM (Capstone)

Curricular Highlights:



- Writing, reading, speaking and listening
- Emphasis on technical writing and professional presentation
- District designed and approved honors level course
- Students work with a mentor to choose an engineering/science research project







Competition Drives Innovation

Students are required to present in three competitions:

- Central Sound Regional Science and Engineering Fair (CSRSEF) - MTHS is hosting this year!
- Washington State Science and Engineering Fair (WSSEF)
- International Science and Engineering Fair (ISEF)
- STEM Expo

Currently implementing research into underclass STEM classes to create opportunities for:

- Science Talent Search (STS)
- Junior Science and Humanities Symposium (JSHS)

JSHS
JUNIOR SCIENCE AND HUMANITIES SYMPOSIUM

REGENERON
SCIENCE TALENT SEARCH

WSSEF Washington State Science & Engineering Fair





MOUNTLAKE TERRACE STEM

STEM Results

Our STEM students have been admitted to:

- Cal Poly
- Colorado School of Mines
- Penn State
- UW (direct to Engineering)
- Berkeley (direct to Bio)
- Georgia Tech
- Embry-Riddle (AZ and FL)
- Seattle University
- US Naval Academy
- Wellesley
- Purdue
- USC
- Carnegie Mellon

Our STEM students are majoring in:

- Mechanical Engineering
- Electrical Engineering
- Astronautic Engineering
- Computer Science
- Computer Engineering
- Chemical Engineering
- Biology
- BioEngineering
- Physics
- Economics
- Music
- International Relations

STEM Community at MTHS



- **STEM Community Building**
  - Movie Nights
  - Other Social Events
  - Club Competitions
  - Mentoring opportunities at Edmonds Elementary Schools
- **Students enjoy being together… after school the department is typically busy!**
  - Working/chatting with teachers
  - Leadership/club meetings
  - Side projects
  - Additional work time
- **Parent Involvement**
  - FRC
  - TAC
  - STEM Boosters





STEM Community at MTHS



STEM Program Timeline

January 31st
Online STEM Program Applications Due

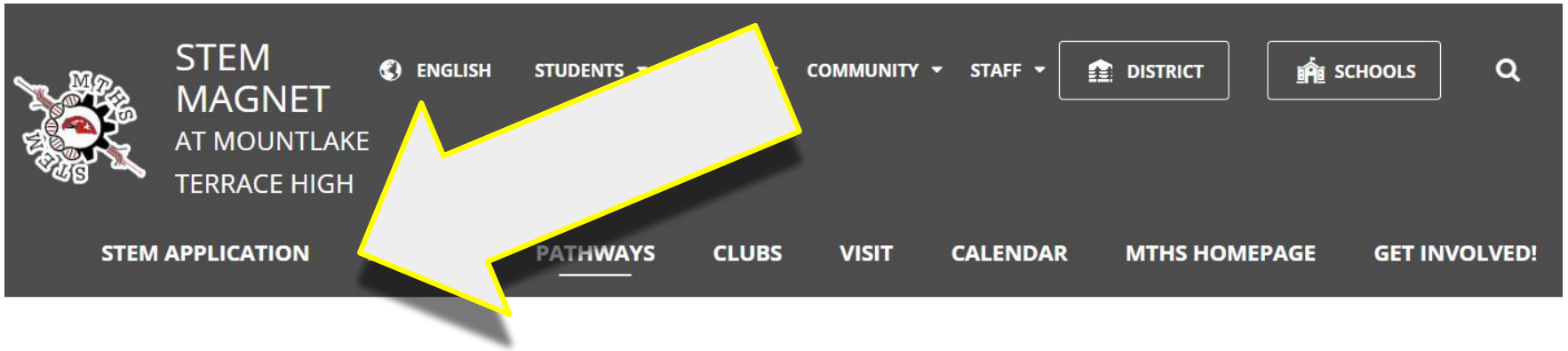
End of Feb.
All 8th Grade Registration Forms Due

Mid February
Notes of admittance to the STEM Program mailed out

- **In-area students:** Normal registration process in February; sign up for "IED" and indicate participation in the MTHS STEM program on your form.
- STEM Program Application forms are required from all interested 8th grade students… both in-area and out-of-area students.

- Late applications to the STEM program will be given consideration

MTHS STEM Website



HOME › PATHWAYS

MTHS STEM Honors Diploma Guide

MTHS STEM Exploratory Diploma Guide

MTHS STEM Program

Pathways

The MTHS STEM program consists of two pathways, the Honors STEM pathway that consists of several AP and college-level courses as well as a deep dive into one of the specific STEM fields of Aerospace, Biotechnology, and Computer Science. The second pathway, the Exploratory STEM pathway is for students who would like explore different facets of STEM.

STEM Application 2025-2026



Registration live now!

MOUNTLAKE TERRACE STEM