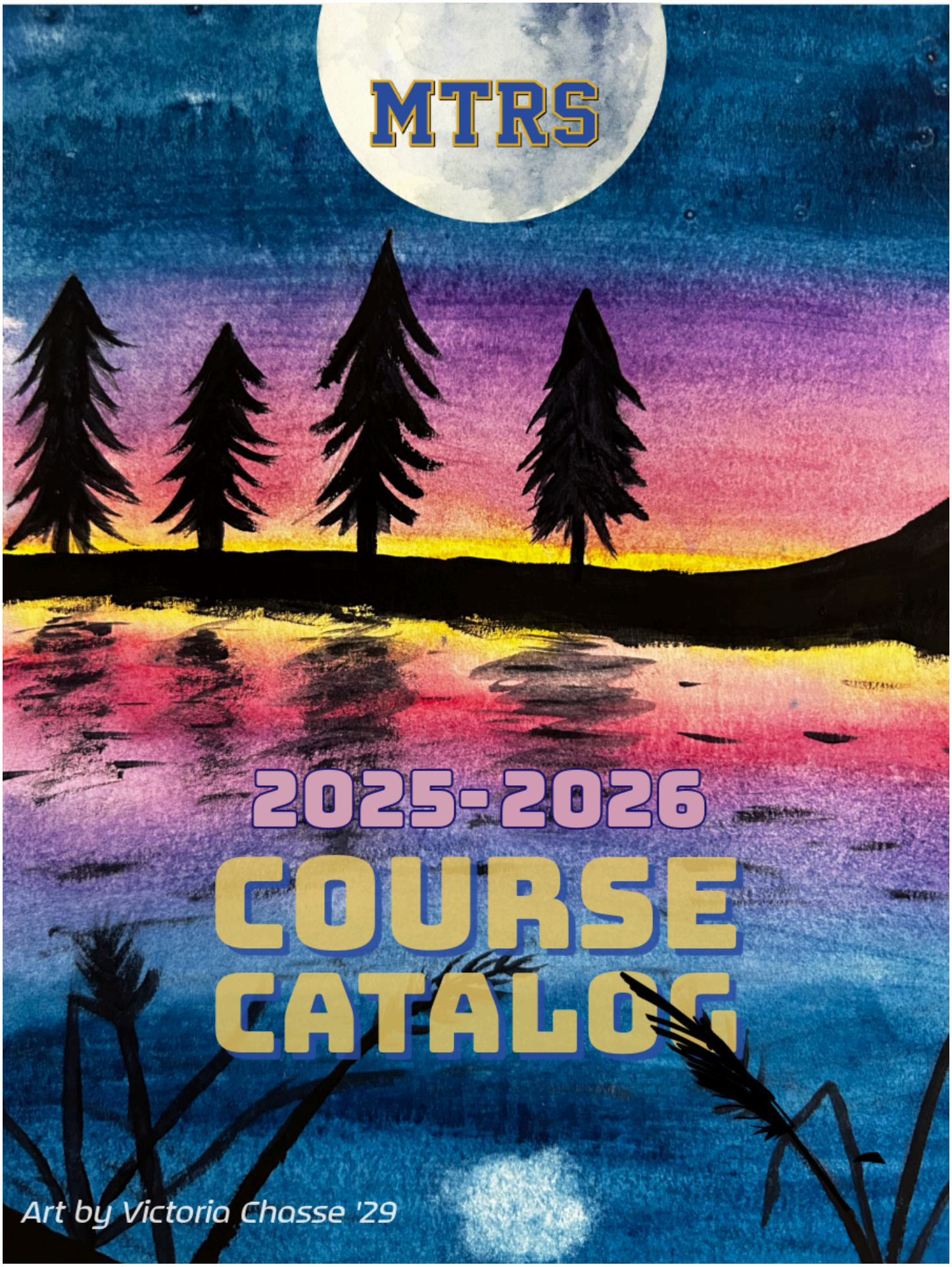
MTRS
2025-2026
COURSE CATALOG
Art by Victoria Chasse '29

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WELCOME MESSAGE

2025-2026

THE TRAILBLAZER IS YOU!

Welcome to Mohawk Trail Regional School

AT MTRS YOU WILL BLAZE A TRAIL TO GRADUATION THAT IS RIGHT FOR YOU, BECAUSE EVERYONE IS UNIQUE. TRY SOMETHING NEW. EXPLORE YOUR INTERESTS. CHALLENGE YOURSELF TO GO DEEP AND FAR. THIS JOURNEY WILL BE FILLED WITH OPPORTUNITIES TO GROW AND DISCOVER YOUR PATH.

"When you choose your fields of labor go where nobody else is willing to go."
– Mary Lyon

MTRS

How to Use the Course Catalog

Students will use this catalog in many ways. They can check out some pathways, starting on the next page. They can also see all of the courses that are offered to determine when to fit them in over their four high school years. This catalog is set up in a way that students can go through page by page, starting with the pathways, and ending with the course descriptions to figure out what their plan is for high school.

How To Sign Up for Classes

Grades 8-11

After meeting with your school counselor to develop or update your four-year plan for your pathway, you will have an opportunity to sign up for classes for the following school year. Here is a timeline of events that will assist you with this process.

November – January: Meet with school counselor regarding your pathway progress.

February: Sign up for classes electronically in Advisory

March: Review any gaps with your school counselor. They will contact you if there are issues to be ironed out.

May-June: Review your schedule with your Advisory Teacher to make sure you are set for the following year.

Late August: You will be contacted by your school counselor if any courses you may not have received credit for cause a change in your schedule (i.e., not passing an English class)

First Couple Days of School: There is a small window for adding or dropping a class. Usually within the first 2-3 days of school. Check with your counselor if you have questions regarding add/drop.

Blazing Your Trail

Pathways to Your Future

At Mohawk Trail School, students have the opportunity to choose their own pathway through the Trailblazing Model. The following are specific pathways that have been set up but feel free to blaze your own trail in any way that makes sense to you. Talk with your middle or high school counselor about your dreams for success.

Note: Starred courses are required courses to meet MTRS graduation requirements.

World Languages
(Spanish, French, or American Sign Language)

Grade	English	Math	Science	Social Studies	Language	Additional Requirements	Suggested Elective	Suggested Elective
9	English 9* -or- English 9 H*	Integrated Math 1* -or- Integrated Math 1 H*	Biology*	World History* -or- World History H*	World Language 2	Physical Education*	Elective	Elective
10	English 10* -or- English 10 H*	Integrated Math 2* -or- Integrated Math 2H*	Chemistry	US History 1* -or- US History 1 H*	World Language 3	Health*	Elective	Elective
11	English 11 -or- AP English	Accelerated IM 3/ Precalculus	AP Biology -or- AP Chemistry *Must choose a Science Class Junior Year*	US History 2* -or- AP US History*			Spanish or French 101 at GCC -or- ASL 101 at HCC	Spanish or French 102 at GCC -or- ASL 102 at HCC
12	Multimedia Journalism, Humanities, -or- AP English	AP Calculus	AP Environmental Science	Psychology or Sociology *Must choose a Social Studies Class Senior Year*		Capstone*	Spanish or French 201 at GCC -or- DFS101 at HCC	Spanish or French 202 at GCC -or- SOC 110 or PSY 110 at HCC

Post-Secondary options that can be started while in high school: GCC French Certificate (transferrable to other colleges/ programs) GCC Spanish Certficate (transferrable to other colleges/ programs) HCC Deaf Studies Certificate, Massachusetts GenEd Foundation Transfer Block

With a high school diploma and less than 2 years of training	With 2+ years of training or a college degree
Au pair Community Health Worker Direct Care Worker Flight Attendant Hotel Industry Worker Paraprofessional Travel Agent Tour Guide Tutor	ASL Interpreter Certified Interpreter Educator Foreign Service Officer Hotel Manager Medical Interpreter Social Worker Translator

Health								
Grade	**English**	**Math**	**Science**	**Social Studies**	**Language**	**Additional Requirements**	**Suggested Elective**	**Suggested Elective**
9	English 9* -or- English 9 H*	Integrated Math 1* -or- Integrated Math 1 H*	Biology*	World History* -or- World History H*	World Language *(1 or 2 depending on 8th grade course)*	Physical Education*	Elective	Elective
10	English 10* -or- English 10 H*	Integrated Math 2* -or- Integrated Math 2H*	Chemistry	US History 1* -or- US History 1 H*	World Language *(2 or 3 depending on 8th grade course)*	Health*	How To Think	Elective
11	English 11 -or- AP English	Integrated Math 3 -or- Accelerated IM 3/ Precalculus	AP Biology	US History 2* -or- AP US History*		Capstone*	Psychology -and- GCC Dual Enrollment Psychology -or- HCC Dual Enrollment Vet Asst 1	Sociology -and- GCC Dual Enrollment Sociology -or- HCC Dual Enrollment Vet Asst 2
12	Multimedia Journalism, Humanities, -or- AP English	Statistics Precalculus AP Calculus *Must choose a Math Class Senior Year*		Psychology or Sociology *Must choose a Social Studies Class Senior Year*		GCC Dual Enrollment: Anatomy -or- HCC Dual Enrollment Vet Asst Externship	GCC Dual Enrollment: Anatomy II -or- HCC Dual Enrollment Vet Asst Externship	Capstone*
Summer after Senior Year: GCC PSY217 Human Growth and Development								
Post-Secondary that could be completed before graduating high school: GCC Pre-Nursing Certificate (transferrable to other colleges/ programs) HCC Vet Assisting Certificate (transferrable to other colleges / programs or career entry), Massachusetts GenEd Foundation Transfer Block								

With a high school diploma and less than 2 years of training	**With 2+ years of training or a college degree**
Certified Nursing Assistant	Dental Hygienist
Dental Assistant	Doctor/ Registered Nurse
Emergency Medical Technician	Medical Laboratory Technician
Esthetician	Occupational Therapist / Aide
Home Health Aide	Orthotists and Prosthetist
Licensed Practical Nurse	Physical Therapist / Aide
Massage Therapist	Physician Assistant
Medical Assistant	Radiologic Technician
Medical Coding and Billing Specialist	Respiratory Therapist
Medical Office Assistant	Speech and Language Therapist / Aide
Paramedic	Surgical Technologist
Phlebotomist	Veterinarian
Veterinary Assistant	Veterinary Technician

Engineering and Cyber Security Pathway

Grade	English	Math	Science	Social Studies	Language	Additional Requirements	Suggested Elective	Suggested Elective
9	English 9* -or- English 9 H*	Integrated Math 1* -or- Integrated Math 1 H*	Biology* -or- Biology H*	World History* -or- World History H*	World Language *(1 or 2 depending on 8th grade course)*	Physical Education*	Computer Science	Robotics I
10	English 10* -or- English 10 H*	Integrated Math 2* -or- Integrated Math 2H*	Chemistry -or- Chemistry H	US History 1* -or- US History 1 H* *(Honors required for AP in Junior Year)*	World Language *(2 or 3 depending on 8th grade course)*	Health*	AP Computer Science	Robotics II -or- Forensics
11	English 11 -or- AP English	Accelerated IM 3/ Precalculus	AP Chemistry -or- AP Computer Science	US History 2* -or- AP US History*			HCC Dual Enrollment	HCC Dual Enrollment
12	Multimedia Journalism, Humanities, -or- AP English	AP Calculus	AP Computer Science – Cyber Security -or- Any Lab Science Class	Psychology or Sociology *Must choose a Social Studies Class Senior Year*		Capstone*	HCC Dual Enrollment	HCC Dual Enrollment
Summer after Senior Year: HCC								
Post-Secondary: Engineering Certificate at HCC, Cyber Security Certificate at HCC								

With a high school diploma and less than 2 years of training	**With 2+ years of training or a college degree**
Appliance Repair Technician	Architect
Auto body or glass repairer	Automotive Mechanic
Automotive Mechanic Technician	Biotechnical Engineer & Biomedical Engineer
Computer Aided Design (CAD) Technician/Drafter	Civil Engineer
Computer Programmer	Data Scientist / Statistician
Cyber Security Specialist	Electrical Engineer
Diesel Service Mechanic Machine / CNC Operator	Educator
Field Service Technician	Game Designer
Heavy and Tractor Trailer Truck Driver	Manufacturing Engineer & Industrial Engineer
HVAC Technician	Mechanical Engineer
IT Help Desk Professional	OEM Certified Service Technician
Laser Optic Technician	Parts Department Technician
Manufacturing Maintenance Technician	Service Writer/ Advisor
Water Treatment Plant Operator	Small Engine Repair Technician
	Software / Computer Engineer
	Supply Chain Coordinator

Visual and Performing Arts Pathway

Grade	English	Math	Science	Social Studies	Language	Additional Requirements	Suggested Elective	Suggested Elective
9	English 9* -or- English 9 H*	Integrated Math 1* -or- Integrated Math 1 H*	Biology* -or- Biology H*	World History* -or- World History H*	World Language *(1 or 2 depending on 8th grade course)*	Physical Education*	Fine or Performing Arts Course	Fine or Performing Arts Course
10	English 10* -or- English 10 H*	Integrated Math 2* -or- Integrated Math 2H*	Chemistry -or- Chemistry H	US History 1* -or- US History 1 H*	World Language *(2 or 3 depending on 8th grade course)*	Health*	Fine or Performing Arts Course	Fine or Performing Arts Course
11	English 11 -or- AP English	Integrated Math 3 -or-Accelerated IM 3/ Precalculus	Lab Science	US History 2* -or- AP US History*		Fine or Performing Arts Course	GCC Dual Enrollment or Internship	GCC Dual Enrollment or Internship
12	Multimedia Journalism, Humanities, -or- AP English	One additional math course is required senior year.	Lab Science	Psychology or Sociology *Must choose a Social Studies Class Senior Year*		Capstone*	GCC Dual Enrollment or Internship	GCC Dual Enrollment or Internship

The following programs can be started while attending MTRS: GCC Certificate in Visual Art, GCC Recording and Music Production Certificate, GCC Associate Degree in Theater, Massachusetts GenEd Foundation Transfer Block

With a high school diploma and less than 2 years of training	**With 2+ years of training or a college degree**
Artist	Audio Programmer
Actor	Artist
Chef	Art / Music Therapist
Cosmetologist / Barber	Broadcast Engineer
Gallery Assistant	Educator
Graphic Design Assistant	Fashion Designer
Illustrator	Game Audio Composer
Makeup Artist	Game Designer
Musician	Graphic Artist
Nail Technician	Interior Designer
Photographer	Lighting Designer
PreSchool Teacher	Medical Illustrator
Recording Assistant	Museum Curator
Television Production Assistant	Music Composer
Videographer	Performer (actor, dancer, singer)
	Songwriter
	Sound Engineer

Special Pathway Opportunities at MTRS

Advanced Placement (AP)

What is AP? Advanced Placement is a program run by the College Board (the makers of the SAT) that allows you to take special high school courses that can earn you college credit and/or qualify you for more advanced classes when you begin college. AP courses are designed to give you the experience of an intro-level college class while you're still in high school. Plus, you can get college credit for the class if you receive the required score on the AP exam (As determined by the college you wish to attend).

MTRS offers 10 different AP courses in the following academic areas:

Biology, Calculus AB, Chemistry, Computer Science Principles, Computer Science A, Computer Science-Cyber Security (potential new AP class), English Language, English Literature, Environmental Science, Physics, United States History. Students may also take additional AP classes through online coursework. Students should keep in mind that not all courses meet every year. Check listings.

The expectation is that students taking AP courses will also pay for and take the AP exams offered by the College Board in May of the school year. Students qualifying for free/reduced lunches will be asked to pay a significantly reduced fee*. Anyone who doesn't qualify or needs financial support should reach out to the student services dept.

**Students need to have an application for free/reduced lunches on file with the school (even though lunches have been traditionally free for all students in the last several years) to receive this reduction.*

Scholars as Athletes

NCAA Eligibility Center

The NCAA, or National Collegiate Athletic Association, was established in 1906 and serves as the athletics governing body for more than 1,300 colleges, universities, conferences, and organizations. The NCAA is committed to the student-athlete and to governing competition in a fair, safe, inclusive, and sportsmanlike manner. The NCAA Eligibility Center certifies the academic and amateur credentials of all college-bound student-athletes who wish to compete in NCAA Division I or II athletics. Colleges in Divisions I and II may offer athletic scholarships, while Division III colleges and universities may not. To assist with this process, the Eligibility Center staff fosters a cooperative environment of education and partnership with high schools, high school coaches, and college-bound student-athletes. Ultimately, the individual student-athlete is responsible for achieving and protecting his or her eligibility status. Consult these links to determine courses you need to maintain eligibility **by the beginning of your sophomore or junior year:**

https://counselors.collegeboard.org/counseling/prepare/athletes/ncaa-course-work

https://www.ncaa.org/sports/2014/10/6/core-courses.aspx

http://fs.ncaa.org/Docs/eligibility_center/Student_Resources/CBSA.pdf

https://blog.collegeboard.org/college-planning-checklist-for-student-athletes

Capstone

Every senior participates in a capstone project. This is a culminating experience of their high school career. Through a variety of projects, research, and internship opportunities, the Capstone allows you to showcase your diverse interests and abilities. Your Capstone allows you to take charge of your own learning and expand on your interests you discovered through your coursework, internships, or dual enrollment. Students will take the Senior Capstone Seminar that will assist in leading the way to completing this graduation requirement.

Dual Enrollment

Greenfield Community College and Holyoke Community College offer programs that are direct connections to coursework at MTRS. Students take classes either online or in person at these colleges and earn college credits while still a student at MTRS. In many cases, these are at low- or no-cost to students.

Student participating in Dual Enrollment opportunities, will receive college credit as well as high school credit for their work and beginning with the class of 2026 the grade will be factored into the GPA.

Please contact Mrs. Desarro, high school counselor, when planning what courses to take.

Industry Credentials

Students have the opportunity to take certification workshops that will give them Industry Credentials in the following areas. These opportunities will be available yearly or every other year depending on funding sources and external partnership agreements.

- CPR/First Aid (all tenth-grade students)
- ServSafe
- Driver's Education
- Certified Nursing Assistant (CNA) – coming in summer of 2026
- COMPTIA – IT Fundamentals

Interdisciplinary Courses

There are several courses at MTRS where you combine skills to engage in content in new ways. In addition to course on the MTRS campus, many dual-enrolled classes are interdisciplinary. These blended courses promote creative thinking and problem-solving skills.

Internships

Available to 11th and 12th graders, provides students with hands-on experience and the opportunity to explore careers while earning high school credit. You will design the internship experience that meets your goals and connects you with professionals in your field of interest.

Completing Your Journey at MTRS

Graduation Requirements

When you set up your pathways trail, either at the end of your 8th grade or at the beginning of 9th grade, in anticipation of graduation, there are several mandated requirements that you must complete.

Credits Required for Graduation

Students are required to take 168 credits for graduation in the following required areas. The Commonwealth of Massachusetts has a minimum requirement of courses for graduation that MTRS exceeds to allow students to have the coursework they need to be successful in their post-secondary quest.

Students must also register for 52 credits per school year, 26 credits per semester. These courses may include internships, independent studies, dual enrolled courses, and many other pathway opportunities. Seniors, with privileges, may take one fewer course and either arrive late or leave early if their credits for graduation will allow.

Academic Area	Number of Courses/Credits Required
English	4 courses, 24 credits
Mathematics	4 courses, 24 credits
Science	4 courses, 24 credits (including Biology)
History/Social Studies	4 courses, 24 credits (including World, US1 and US2 or APUSH)
World Language	2 courses, 12 credits (2 of same language)
Health	1 course, 3 credits
Physical Education	1 course, 3 credits
Arts	1 course, 3 credits
Electives	3 courses, 18 credits
Senior Capstone	1 course, 6 credits
Advisory	8 courses (1 per semester), 16 Credits

Credit Recovery – What Happens if I Fail a Class?

There are several ways to recover credit.

- Retake the class.
- Take the class online (at expense of the family)
- Independent Study - Talk with your school counselor about options specific to your needs.

Retaking Classes

With limited exception, you may only retake a class if you do not pass it. Some exceptions to this rule include:

- Music Classes
- Support Classes
- Specific Art Classes
- Internships

- Physical Education

Competency Determination

As of the writing of this document, the requirement to pass MCAS for graduation has been eliminated by the vote of the electorate of Massachusetts. High school students will still need to earn a CD in order to graduate. Since 2003, the CD has been based on achieving qualifying scores on relevant MCAS tests. After the November vote, CD is now based on "satisfactorily completing coursework that has been certified by the student's district."

Will high school students be required to take MCAS in 2025 and beyond?
It is the expectation of the school, district, and state that all students take all of the MCAS tests administered in grades 3-8 and 10, along with science MCAS test in high school. At MTRS, the high school science MCAS offered is typically Biology in the 9th grade. ***Participation in the MCAS is required by federal and state law and the ballot question did not change this requirement.*** The Department of Elementary and Secondary Education's (DESE's) accountability system will continue to use assessment participation rates (and the resulting achievement and growth data) in its annual determinations made through the district and school accountability system. This means, schools and districts will continue to be evaluated by student participation and performance on MCAS. These exams also give educators important information a out the efficacy of our curriculum and teaching practices.

What about the John and Abigail Adams and Stanley Z. Koplik Certificate of Mastery Scholarship Program?
These scholarships, which allows recipients to receive free tuition at Massachusetts State Colleges and Universities, is based, in part on a student's MCAS scores exceeding proficiency. This will continue to be the case.

Graduation Endorsements

Graduation endorsements are special recognitions that you can earn along with your diploma to honor your work in an area outside of academics. Think of them like a college minor.

They show your dedication to a particular area of interest and allow you to stand out as a well-rounded student.

Equity Endorsement: Awarded by the Equity Council to honor students who focus on diversity, equity, and social justice.

Creative Arts Endorsement: Awarded by the art department to honor students who have excelled in visual arts.

Seal of Biliteracy: Award provided by state-approved public schools and districts that recognizes high school graduates who attain high functional and academic levels of proficiency in English and one or more other world languages by high school graduation. The State Seal of Biliteracy takes the form of an insignia that appears on the transcript and/or diploma of the graduate.

Understanding the Grading System

Grade Point Average

Grade Point Average (GPA) is used to determine class rank and valedictorian/salutatorian for the graduating class. It is also used by colleges as part of the determination for admittance to their institution and NCAA eligibility for college-level play.

What "Counts"?

Class of 2025: Core Academic Areas (English, Math, Science, Social Studies, and World Language) are used to determine your GPA.
Class of 2026 and beyond: ALL courses will be used to determine GPA except Introduction to Physical Education (all subsequent PE class will be included in GPA calculation)

How Your Numeric Grade Transfers to a Letter Grade

Letter grades show up on report cards and are based on the numeric grade you receive for a course. The following chart shows the breakdown for each grade level.

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
97-100	93-96	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	>60

How Grades Transfer to a 4-Point Scale

GPA is calculated on a 4-point scale based on the letter grade you receive for a class. The following chart indicates how your scores you receive in a particular class is weighted for the purposes of calculating your GPA.

Placement level	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
College Prep	4	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.2	2	1.8	0
Honors	4.5	4.3	4.1	3.9	3.7	3.5	3.3	3.1	2.9	2.7	2.5	2.3	0
Advanced Placement (AP)	5	4.8	4.6	4.4	4.2	4	3.8	3.6	3.4	3.2	3	2.8	0

Advancing to the Next Grade

To advance to the next grade the following criteria must be met:

1. Credits needed:
    a. 10th Grade: 40
    b. 11th Grade: 80
    c. 12th Grade 120
2. Pass English and Math each year along with Biology in 9th grade.

Standards-Based Teaching and Learning

We want our students to be leaders of their own learning, to be prepared for success in college or career after high school, and to be a positive and active member of our broader community. In our classrooms, we are making a shift towards Standards Based Teaching and Learning (SBTL), with a clear focus on content mastery and application of skills, as well as measurable success in standardized state assessments. Below is a chart that shows where we are headed and how it compares to our current grading system.

Proficiency level	**Exceeding**	**Proficient/Meets**	**Emerging**	**Not yet Meeting**	**No evidence submitted**
Standard descriptors	Shows **strong** understanding of content/concepts	Shows **good** understanding of content and concepts	Shows **some** understanding of content and concepts	Shows minimal or no understanding	Assignment not completed
Best Fit Grade	**A**	**B**	**C**	**D**	**Fail**
5 point/ percentage	90 - 100	80--89	70 - 79	60-69%	59% and below
"I can" statements: (Student friendly phrases that can help with SLC)	I always	I nearly always	I mostly	I rarely	I don't/ haven't

Specialized Courses – Grading Requirements

Advisory

Every student is matched with an Advisory group that consists of grade-level peers and at least one faculty member. Advisory meets three times per week in the High School and four times per week in the Middle School. Skills such as those needed for social-emotional learning, post-secondary options, restorative justice, and school skills such as assistance with passing classes and obtaining help are explored through the advisory curriculum.

Caregivers also benefit from the partnership with the Advisory Teacher as a go-to contact to further help their student navigate grades and find resources as needs arise throughout the school year.

Students are required to participate in two Student-Led Conferences (SLCs) per year. These conferences highlight skills the students have mastered in the first quarter and third quarter of the year as well as show where improvements have been or need to be made. The SLCs are prepared for during Advisory time and take place with the student, a caregiver, and the advisory teacher. ***SLC's are mandatory to receive credit for Advisory.***

Capstone

Seniors are required to complete a Capstone Project and associated presentations to graduate. Capstone Projects encourage students to connect their learning to community issues or problems and to integrate outside-of-school learning experiences, including activities such as interviews, scientific observations, creative events, or internships. Student present their work to a panel of peers, teachers, community members, and students for feedback and review.

List of Courses

English Language Arts

To fulfill the MTRS graduation requirement, students must take four English Courses. Students must take at least one English course every year and may take additional courses in their Sophomore through Senior years.

	Grade 9	Grade 10	Grade 11	Grade 12 *(Must take English in Senior Year)*
Required Courses	English 9 -or- English 9 Honors	English 10 -or- English 10 Honors	English 11 -or- AP English Language	Choose 1 or more: AP English Literature Multimedia Journalism Humanities Bioethics
Elective		How to Think	How to Think Multimedia Journalism Humanities Bioethics	

ENGLISH 9 **(6 credits; one semester)**
Course #: 01001
HONORS ENGLISH 9 **(6 credits; one semester)**
Course #: 01001H

Using a variety of literature, poetry, and non-fiction, this course asks 9th graders to consider the fundamental tension between each of us and the societies we live in. Students will be asked to read, write, research, discuss, and present on a wide variety of topics, with a special focus on critical thinking, using evidence, and public speaking. Setting the standard for high school level coursework, 9th grade ELA provides students with a chance to review and solidify core skills, while pushing into advanced work with rhetoric, analysis, and theme. Primary texts include *Born A Crime* by Trevor Noah, and *The Marrow Thieves* by Cherie Dimaline. **To earn honors credit**, students will be expected to push towards "exceeding" on the focus standards, read more advanced texts, and participate in an online peer discussion group.

ENGLISH 10 **(6 credits; one semester)**
Course #: 01002
HONORS ENGLISH 10 **(6 credits; one semester)**
Course #: 01002H

How did our ideas of what it means to be an American develop and evolve? In this tenth grade course students read and discuss major works of American literature, considering historical context and making connections to contemporary issues. Texts included in this course are *A Raisin in the Sun*, *The Great Gatsby* along with selected short stories highlighting the multiple voices and communities in the United States. The course focuses on developing advanced expository writing skills, including persuasion and logical argument; developing close reading skills of complex texts; synthesizing complex readings and ideas, and developing other necessary literacy skills. **To earn honors credit**, the highly motivated sophomore will complete a series of extended

learning assignments that ask students to explore and apply literacy skills beyond the scope of the course in ways that prepare them for the rigors of more advanced levels of study.

ENGLISH 11 **(6 credits; one semester)**

Course #: 01003

HONORS ENGLISH 11 **(6 credits; one semester)**

Course #: 01003H

To what extent has the internet changed our relationships? What obligations do people have in other's pursuit of happiness? What is our relationship to the environment? To what extent do our laws and politics reflect the values of a just society? In this course designed to create critical readers and successful crafters of language in academic, professional, and personal arenas, students will consider questions such as these about the world they live in. They will explore the backstory of current events, synthesizing ideas from writers across genres (nonfiction, fiction, poetry, film, etc.) as they develop close reading skills grounded in rhetorical analysis. They will strengthen their ability to enter the conversations of public discourse with their own unique viewpoints, both verbally and in writing. Additionally, students will prepare for senior capstone and the college/career application process. **To earn honors credit,** the highly motivated junior will complete a series of extended learning assignments that ask students to explore and apply literacy skills beyond the scope of the course in ways that prepare them for the independent rigors of college study.

AP ENGLISH LANGUAGE AND COMPOSITION **(6 credits; one semester)**

Course #: 01005

This Advanced Placement English course is at the college level and designed to create critical readers and successful writers and crafters of language in academic, professional and personal arenas. As students explore a variety of issues of our modern world (i.e. impact of social media on relationships, our relationship with the environment, economic inequality, gender roles, etc.), they will learn to analyze expository, analytical and argumentative writing across genres (nonfiction, fiction, poetry, etc.) with a close eye on the rhetorical strategies and techniques that are being employed. Students will develop close reading skills and the ability to determine audience and purpose in order to communicate information clearly and effectively using a variety of tools/media in varied contexts for a variety of purposes. Using these skills, they will work on improving their own writing by using the strategies and techniques that they have seen modeled. The course culminates in the AP exam in May. Additionally, students will prepare for senior capstone and the college/career application process after the AP exam. **Prerequisite: completion of summer assignment.**

HOW TO THINK - Cultural Criticism & Literature **(6 credits; one semester)**

Course #: 010655

Our society is embedded with lots of different power hierarchies, including race, ethnicity, gender, sexuality, social class, and nationality. Where did these ideas come from? How do they affect us, and how do we talk about them? This class teaches you the fundamental ideas of several critical theories and how to look at the world from different perspectives. Each unit follows a predictable structure, includes a lot of class discussion, and focuses on quality over quantity. Primary novels are *Mapping the Interior* and *Passing*.

This course is open to Sophomores and Juniors as elective credit, but is strongly encouraged to compliment AP English courses.

AP ENGLISH LITERATURE AND COMPOSITION **(6 credits; one semester)**
Course #: 01006

This class is specially designed to assist students in passing the AP Literature test in the spring, and uses as a benchmark the *AP English Course Description* from the College Board. In addition to working towards passing the test, you will read, discuss, and write about literature, focusing on texts such as *The Picture of Dorian Gray, The Heart of Darkness, Things Fall Apart, White Teeth, the Tempest, and Ceremony*. This course will look at both canonical literature and literature that rests outside the mainstream. We will look at different ways to analyze literature, eventually coming to terms with a "second language," or a language that looks beyond the plot of a text or the meaning of a poem. We will constantly ask ourselves who the author is, who his or her audience, what message or meaning can we glean from the text, and how has the author brought his or her message across to the reader. **Prerequisite: completion of summer assignment.**

HUMANITIES **(6 credits; one semester)**
Course #: 01099

HONORS HUMANITIES **(6 credits; one semester)**
Course #: 01099

Also known as, "I just checked in to see what condition my condition is in." Humanities is a rigorous course examining the myths, beliefs, and philosophies of Western culture through fiction, nonfiction, and the arts all the while locating these texts within their historical settings. Structured around the Socratic method, Humanities' students will read *Beowulf, Grendel*, and Shakespeare's *Macbeth*, view works of art and watch modern films such as *Hercules, Alien*, and *Black Swan* all the while making connections between the texts and our Western culture. This course features a wide range of writing assignments including expository, analysis, and persuasion pieces. An **Honors Humanities** course option is available within the class for students who are interested in exploring topics in greater depth. Students earning honors credit will be expected to read an additional, supplemental, text and provide greater research into the topics discussed, as well as lead a class discussion.

BIOETHICS **(6 credits; one semester)**
Course #: 03099

HONORS BIOETHICS **(6 credit; one semester)**
Course #: 03099H

Interdisciplinary Elective (Counts as non-laboratory science elective credit toward graduation requirements, I = English and Science)

In this interdisciplinary co-taught merger of science and English, students will gain a primer in the study of ethics and philosophy, and learn how to apply this knowledge to scientific phenomena and research practices, as well as to science applications in society and everyday life. The course will include both case-based discussion and laboratory applications. Students will examine the scientific research and ethical implications of topics including genetic engineering, climate change, global health equity, and clinical applications of medicine. Students will be assessed on whole-class discussions and debates, written reflections on articles and books, argumentative writing, laboratory analysis, and occasional written tests or quizzes. **To earn honors credit,** the highly motivated student will complete a series of extended learning assignments that ask students to explore topics in more depth and apply skills beyond the scope of the course in ways that prepare them for the rigors of more advanced levels of study. **Prerequisites: Successful completion of Biology and 10th grade English (or guidance approval for interested 10th grade students).**

MULTIMEDIA JOURNALISM **(6 credits; one semester)**
Course #: 10204
(Interdisciplinary course: English and Art/Digital Media)(I)
Multimedia Journalism will have students develop their media literacy skills while also learning various methods of media production. Students will spend time reading, listening, watching and analyzing various forms of media. This project-based course will also push students to hone their communication skills by having them collaborate to produce writing, audio, and video projects. Projects students have developed in the past include a school newspaper, a video series, a book of essays, and a podcast.

English Classes by Recommendation Only

English Language Development I, II, III, IV **(12 elective credits; full year)**
English Language Development is a required course for English language learners, MTRS students who meet the state criteria for specialized English language instruction. The course, taught by an ESL-licensed teacher, is designed to provide direct instruction in the English language in the context of the Massachusetts Frameworks. The English Language Development course has four levels aligned to the English language proficiency level of each student. With hard work, daily practice and focused study, students are expected to improve their English proficiency in the four domains of speaking, listening, reading and writing as measured by the annual WIDA Access test administered each year. Course objectives include progress in academic vocabulary, reading comprehension and essay writing with the overarching goal of grade-level proficiency in English. Instruction will focus on academic language practices such as arguing with evidence, justifying conclusions, expressing cause-and-effect relationships, describing one's reasoning, making predictions, and negotiating meaning. Students will do extensive reading, engage in academic discussions and create a variety of written and multi-modal texts connected to both WIDA and content-area standards. **Prerequisite: English Language Learner status**

FILM STUDIES **(6 credits, one semester)**
Course #: 01999

WORLD LITERATURE **(6 credits, one semester)**
Course #: 01058

FUNDAMENTALS OF ENGLISH **(6 credits, one semester)**
Course #: 01992F

FOUNDATIONS OF ENGLISH **(3 credits, one semester)**
Course #: 019992

PRINCIPLES OF ENGLISH 10 **(6 credits, one semester)**
Course #: 01001P10

Mathematics

To fulfill the MTRS graduation requirement, students must take four Mathematics courses. The 25-26 School Year will begin the transition from traditional Algebra-Geometry-Algebra II sequencing to Integrated Mathematics I, II, and III. Students will have the opportunity to accelerate their coursework to allow for AP Calculus or AP Statistics in their senior year.

	Grade 9	Grade 10	Grade 11	Grade 12 *(Must take Math in Senior Year)*
Required Courses	Integrated Math 1 Integrated Math 1 H	Integrated Math 2 Integrated Math 2 H	Integrated Math 3 Accelerated Math 3/Precalculus	Personal Finance Precalculus AP Calculus AB Data Science

With The Change In Math Sequence, What Do I Take Next?

Course Completed at end of 24-25 School Year	Next Course for 25-26 School Year
8th Grade Math	IM1 or IM1 Honors
Algebra I/H	IM2 or IM2 Honors
Geometry/H	IM3 or Accelerated IM3/Precalculus
Algebra 2/H	Precalculus, Personal Finance

INTEGRATED MATHEMATICS 1 **(6 credits; one semester)**
Course #: 02062
INTEGRATED MATHEMATICS 1 HONORS **(6 credits; one semester)**
Course #: 02062H

The Integrated Mathematics 1 course is designed to provide students with a strong foundational understanding of mathematics and to begin developing the communicative and collaborative skills necessary to engage with the more conceptual topics of a high school mathematics curriculum and beyond. The course integrates numerical, algebraic, and geometric concepts, embedded in meaningful contexts. Course content covers the following critical areas: extending understanding of numerical manipulation to algebraic manipulation, synthesizing understanding of functions, and deepening and extending understanding of linear and exponential relationships. Geometry content includes exploration of congruence through rigid transformations and geometric constructions, applying the Pythagorean Theorem to the coordinate plane, and properties of polygons and polyhedra. Students seeking additional challenges in mathematics may elect to take the course for **honors credit**, in which case, they will cover the same content, but with increased expectations for depth of understanding, student participation, and demonstrated ability to communicate mathematical reasoning. Additional content including advanced work in linear algebra may be covered.

INTEGRATED MATHEMATICS 2 **(6 credits; one semester)**

Course #: 02063

INTEGRATED MATHEMATICS 2 HONORS **(6 credits; one semester)**

Course #: 02063H

The primary focus of the IM2 course is on quadratic expressions, equations, and functions, and on comparing their characteristics and behavior to those of linear and exponential relationships. Course content covers the following critical areas: comparing key characteristics of quadratic functions with those of linear and exponential functions, creating and solving equations involving linear, exponential, and quadratic expressions, and using algebraic methods to solve geometric problems. The course also covers the core concepts of univariate and bivariate statistics, and some geometry topics, including establishing criteria for similarity of triangles based on dilations and proportional reasoning, and right triangle trigonometry. Students seeking additional challenges in mathematics may elect to take the course for **honors credit**, in which case they will cover the same content, but with increased expectations for depth of understanding, student participation, and demonstrated ability to communicate mathematical reasoning. Additional content including advanced work in linear algebra may be covered. **Prerequisite: Successful completion of IBL Algebra I/H or IM1/H.**

INTEGRATED MATHEMATICS 3 **(6 credits; one semester)**

Course #: 02064

In the IM3 course, students will utilize skills from IM I and II and extend their understanding of Algebra and geometry concepts such as functions and their inverse, logarithmic functions, polynomial functions, modeling periodic behavior, modeling in geometry, modeling with functions, and trigonometric functions, equations and identities. **Prerequisite: Successful completion of IBL Geometry/H or IM2/H.**

ACCELERATED INTEGRATED MATHEMATICS 3 / PRECALCULUS **(6 credits; one semester)**

Course #: 02064A **Carries Honors Weight**

Integrated Mathematics Precalculus is a foundational course for higher mathematics and is designed to prepare students for entry into calculus. This is a course for students who have a sincere interest in mathematics. Success in IM precalculus will require a strong background in the preparatory courses, and both conceptual and technical proficiency. Topics of study include: functions and their inverse, logarithmic functions, polynomial functions, rational functions and exponents, modeling periodic behavior, modeling in geometry, trigonometric functions, equations and identities, and statistics. Students planning to take AP Calculus or seeking additional challenges in mathematics are strongly encouraged to take this course with increased expectations for depth of understanding, student participation, and demonstrated ability to communicate mathematical reasoning. Additional content including advanced work in modeling with functions and statistics may be covered. **Prerequisite: Successful completion of IBL Geometry Honors or IM2 Honors or permission of the instructor.**

PRECALCULUS AND TRIGONOMETRY **(6 credits; one semester)**

Course #: 02110

HONORS PRECALCULUS AND TRIGONOMETRY **(6 credits; one semester)**

Course #: 02110H

Completion of this course greatly increases the likelihood of college admission and success on the SAT exam. This is the fourth course in Algebra I, Geometry, and Algebra II sequence. The course emphasis is on honing mathematical skills in preparation for advanced college level mathematics. This course covers polynomial, logarithmic, and exponential functions. Additionally, this course covers trigonometric functions, radian measures, circular functions, and identities. **Prerequisite: Successful completion of IBL Algebra II/H.**

PERSONAL FINANCE **(6 credits; one semester)**
Course #: 02157
HONORS PERSONAL FINANCE **(6 credits; one semester)**
Course #: 02157H

The focus of this course will be to apply mathematics to real life financial situations that students will face after high school. Budgets, career research, taxes, personal credit, renting vs. buying a home, buying a car, insurance, and investing are all life skills that this course will discuss in detail. Students will work on building a strong foundation of information and skills that will help them make good decisions in the future. This class will involve extensive use of technology as students work on individual projects. **Prerequisite: This course is for Juniors and Seniors. Successful completion of IBL Algebra II or teacher approval.**

STATISTICS **(6 credits; one semester)**
Course #02201
HONORS STATISTICS **(6 credits; one semester)**
Course #02201H

In a world increasingly driven by data, this course will introduce the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will learn to design experiments, explore and summarize data, and use statistical inference to make decisions. This course will focus on concepts rather than calculations and will make extensive use of technology as a statistical aid. **Prerequisite: Successful completion of IBL Algebra II.** ***This course runs every other year.***

DATA SCIENCE **(6 credits; one semester)**
Course #: 02209
HONORS DATA SCIENCE **(6 credits; one semester)**
Course #: 02209H

Students will learn to be data explorers in project-based units, through which they will develop their understanding of data analysis, sampling, correlation/causation, bias and uncertainty, probability, modeling with data, making and evaluating data-based arguments, the power of data in society, and more! At the end of the course students will have a portfolio of their data science work to showcase their newly developed abilities. This course can lead to a career pathway in statistics, data science, and many other STEM or humanities subjects. **Prerequisite: Successful completion of IBL Algebra II.** ***This course runs every other year.***

AP CALCULUS AB **(6 credits; one semester)**
Course #: 02124

This Advanced Placement course is designed to prepare students to succeed on the Advanced Placement Calculus AB examination. Students will study differential and integral calculus, two of the most powerful tools in mathematics. This course follows topics outlined by the College Board and is designed to prepare students for the Calculus AB Advanced Placement Examination. Students are challenged to strengthen and build on their mathematical skills and to pursue diverse problem situations with clarity, conviction, and enthusiasm.
Prerequisite: Successful completion of Honors Pre-Calculus and Trigonometry or with teacher approval.

The following courses are no longer offered but may show up on a transcript:

IBL ALGEBRA I **(6 credits; one semester)**
Course #: 02052

IBL ALGEBRA 1 HONORS **(6 credits; one semester)**
Course #: 02052H

IBL GEOMETRY **(6 credits; one semester)**
Course #: 02072

HONORS IBL GEOMETRY **(6 credits; one semester)**
Course #: 02072H

IBL ALGEBRA II **(6 credits; one semester)**
Course #: 02056

HONORS IBL ALGEBRA II **(6 credits; one semester)**
Course #: 02056H

Math Classes by Recommendation Only

FUNDAMENTALS OF MATH **(6 credits; one semester)**
Course #: 02003

PRINCIPLES OF ALGEBRA AND GEOMETRY **(6 credits; one semester)**
Course #: 02074

Science

Students must complete 4 years of science, three of which must be a lab science. Lab sciences are denoted with an asterisk in the chart below. Biology ~~and Chemistry are~~ required.

	Grade 9	Grade 10	Grade 11	Grade 12
Required Courses	Biology* (**required**) -or- Biology Honors*	Chemistry* ~~(required)~~ -or- Chemistry Honors*	Anatomy & Physiology* AP Biology* (even years) AP Environmental Science* (even years) Marine Science* Organic Chemistry* Physics* AP Chemistry (odd years)*	Anatomy & Physiology* AP Biology* (even years) AP Environmental Science* (even years) Marine Science* Organic Chemistry* Physics* AP Chemistry (odd years)*
Electives	Computer Science Robotics	Anatomy & Physiology* AP Biology* (even years) BioEthics Computer Science AP Computer Science Principles (odd years) AP Computer Science A (even years) Forensic Science Marine Science* Robotics	AP Computer Science Principles (odd years) AP Computer Science A (even years) BioEthics Computer Science Forensic Science Robotics	AP Computer Science Principles (odd years) AP Computer Science A (even years) BioEthics Computer Science Forensic Science Robotics

BIOLOGY **(6 credits; one semester)**
Course #: 03051

HONORS BIOLOGY **(6 credits; one semester)**
Course #: 03051H

In this 9th grade laboratory course, students are introduced to the various fields in biology and scientific inquiry. This includes chemistry of life, ecology, cell biology, genetics, evolution, anatomy and physiology, and biodiversity. Students will work independently and collaboratively on lab work and problem solving. This course is directly aligned with several of the major topics covered in the MCAS Biology test and, along with the Field Biology course, will prepare the student for their upcoming MCAS Biology test.

An **Honors Biology** option will be available within the class and will provide opportunities to explore the content in greater depth. In addition, the honors curriculum includes weekly extensions. Honors extensions may include activities using modeling, predicting possible outcomes of experiments, interpreting experimental data results, and other applications which are used to help students prepare for AP science courses.

CHEMISTRY **(6 credits; one semester)**
Course #: 01301
HONORS CHEMISTRY **(6 credits; one semester)**
Course #: 01301H

This laboratory course for 10th-12th grade students offers a basic introduction to chemistry. Standard and honors levels are offered as options in every chemistry class. The major areas of study include atomic theory, chemical bonding, nomenclature, chemical reactions, stoichiometry and gas laws. Traditional and inquiry-based laboratory work, problem-solving, and writing chemical equations will be required throughout the semester.

In addition to the coursework of standard level chemistry, honors students will be challenged with extension material involving concept modeling, prediction of experimental outcomes, interpretation of experimental data, implementation of experimental design and introduction to concepts and problems covered in the AP Chemistry curriculum. There are no specific grade requirements for Honors Chemistry. It is open to all students who would like the challenge. **Prerequisite: Successful completion of IBL Algebra I or Integrated Math 1 is necessary for all chemistry students.**

PHYSICS I **(6 credits; one semester)**
Course #: 03151
HONORS PHYSICS I **(6 credits; one semester)**
Course #: 03151H

This is a 10th-12th grade, 6-credit course that introduces historically, empirically, and analytically the basic concepts of physics. Inquiry-based labs will be a major component of the course. Students are expected to work independently and collaboratively to solve problems and accomplish learning goals. The major areas of study include: kinematics (the study of moving objects), dynamics (the study of interaction between two objects in contact), energy, momentum, circular motion, rotational motion, and simple harmonic motion. While the use of algebraic formulas is introduced to support the analysis of data and the making of predictions, the primary aim of the course is to allow students to develop a strong conceptual grasp of these topics. **Prerequisite: IBL Algebra and IBL Geometry.**

FORENSIC SCIENCE **(6 credits; one semester)**
Course #: 15055

CSI Mohawk! This hands-on course provides an overview of the theoretical understanding and practical application of forensic science techniques. Delivered in conjunction with the local Police, Fire and EMT Departments, students will be encouraged to think ‘outside the box’ and to apply what they have learned to a variety of situations. Topics may include collecting and analyzing evidence, DNA, fingerprinting, toxicology, fire science, EMT science and more.

MARINE SCIENCE **(6 credits; one semester)**
Course #: 03005
HONORS MARINE SCIENCE **(6 credits; one semester)**
Course #: 03005H

In this course, students will discover the diversity of ocean life from the smallest microbe to the largest whale. They will explore unique ocean ecosystems including New England habitats and the adaptations marine organisms have made to survive. Oceanography topics including seafloor mapping, tides, currents, hurricanes and technology used for exploring the seas will be introduced. Labs will include observing live animals and dissection of preserved specimens. In addition, students will investigate the threats and conservation measures impacting our oceans, while learning about careers in Marine Science. Class discussions will center on current events and a marine book club. Field trips to Mystic Aquarium and Woods Hole Oceanographic Institute will take our studies on site. Honors students will have the opportunity to explore topics in greater depth and complete an inquiry-based project each quarter. **Prerequisite: successful completion of Biology.**

BIOETHICS **(6 credits; one semester)**
Course #: 03099
HONORS BIOETHICS **(6 credits; one semester)**
Course #: 03099H

In this interdisciplinary co-taught merger of science and English, students will gain a primer in the study of ethics and philosophy, and learn how to apply this knowledge to scientific phenomena and research practices, as well as to science applications in society and everyday life. The course will include both case-based discussion and laboratory applications. Students will examine the scientific research and ethical implications of topics including genetic engineering, global health equity, and clinical applications of medicine. Students will be assessed on whole-class discussions and debates, written reflections on articles and books, argumentative writing, laboratory analysis, and occasional written tests or quizzes. To earn honors credit, the highly motivated student will complete a series of extended learning assignments that ask students to explore topics in more depth and apply skills beyond the scope of the course in ways that prepare them for the rigors of more advanced levels of study. **Prerequisites: Successful completion of Biology and 9th grade English. NOTE: this course is a non-laboratory elective. (I = English and Science)**

ANATOMY AND PHYSIOLOGY **(6 credits; one semester)**
Course #: 03052
HONORS ANATOMY AND PHYSIOLOGY **(6 credits; one semester)**
Course #: 03052H

This is a 6-credit semester block course open to students in grades 10-12. It is designed to study the structure and functions of the human body systems and uses a college textbook and lab manual. The students will study cells, tissues, body organization and all of the body systems and related topics. There will be animal dissection labs related to topics. Anatomy requires frequent review of vocabulary terms, names of body structures and understanding function. This course is highly recommended for any students interested in pursuing a career in the medical or biological fields. **Prerequisite: A satisfactory grade in Biology.**

HONORS ORGANIC CHEMISTRY **(6 credits; one semester)**
Course #: 03103H
This advanced course is for highly motivated students with a strong interest in science. Topics covered include bonding of carbon, functional groups, reactions and their mechanisms, polymerizations and nomenclatures. Projects and regularly scheduled laboratory activities reinforce the lecture and problem-solving format. **Prerequisite: Successful completion of Chemistry or Honors Chemistry.**

AP CHEMISTRY **(12 credits; full year)**
Course #: 03106
This covers material equivalent to two semesters of college chemistry. It is available to students in grades 11 and 12. The syllabus has been designed based upon the curriculum and frameworks developed by the College Board. Major areas of study include: atomic theory and structure, chemical bonding, states of matter, reaction types, stoichiometry, equilibrium, kinetics, thermodynamics and electrochemistry. Through labs, class activities, and problem solving, students will develop inquiry and reasoning skills such as designing a plan for data collection, analyzing data, applying mathematical equations and connecting concepts across AP Chemistry's 6 "Big Ideas". It is for the student who has an interest in chemistry beyond their introductory course. Students are expected to read and answer questions from the text, participate in class discussions, conduct experiments and prepare laboratory reports. All students are required to take the AP Chemistry exam in May to earn AP credit. **Prerequisite: Chemistry, and IBL Algebra 2 or concurrent enrollment in Algebra 2.** *Summer assignment must be completed prior to the start of the course.* **This course is offered in odd graduation years.**

AP ENVIRONMENTAL SCIENCE **(6 credits; one semester)**
Course #: 03207
The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students are expected to perform on the level of a first year college student. All students are required to take the AP Environmental Science Exam in May. **Prerequisite: Successful completion of Biology and Chemistry.** *Summer assignment must be completed prior to the start of the course.* **This course is offered even graduation years.**

AP BIOLOGY **(12 credits; full year)**
Course #: 03056
This course is for the student who has a serious interest in biology and is the equivalent of a two-semester college level biology course. AP Biology is a 12 credit, yearlong course and follows the AP Biology Curriculum Framework. Class topics are divided into 4 Big Ideas: Evolution, Cell Processes, Genetics & Information Transfer and Interactions. For each Big Idea, there are units with selected chapters. For each unit, there will be an exam which follows a similar format to the AP Exam which all students will take in May. The laboratory component is at least 25% of the class time and we will be doing college level lab work. Students are expected to perform on the level of first year college students. **Prerequisites: A satisfactory grade in Biology and Chemistry.** *Summer assignment must be completed prior to the start of the course.* **This course is offered even graduation years.**

COMPUTER PROGRAMMING **(6 credits; one semester)**
Course #: 10152
HONORS COMPUTER PROGRAMMING **(6 credits; one semester)**
Course #: 10152H
Computer Programming is a world where creativity meets technology. You imagine something that you want the computer to do and then you teach the computer how to do it. Programming is both intriguing and challenging. You need to apply analytical reasoning in order for your program to work. This introductory course builds understanding of fundamental programming concepts. Working with a partner, students complete lab activities to study the following topics: variables, repetition loops, lists, decision structures, and subroutines. Students will apply this knowledge to projects of their own design.

INTRODUCTION TO ROBOTICS **(6 credits; one semester)**
Course #: 21009
HONORS INTRODUCTION TO ROBOTICS **(6 credits; one semester)**
Course #: 21009H
This course introduces core computer programming logic and engineering reasoning skills through the design, construction, and operation of autonomous robots. In the first half of the course, students will use Lego robots to learn about how computer programs, microprocessors, sensors, and actuators can be used to produce a robot that interacts with its environment in a predictable and useful fashion. In the second half of the course, students will learn basic programming and electronics while working with Arduino microcontroller boards and an assortment of components to construct robots from scratch. The course introduces students to the field of electrical engineering and seeks to give students experience and access to the broad set of skills and perspectives called computational thinking.

AP COMPUTER SCIENCE PRINCIPLES **(6 credits, one semester)**
Course #: 10015
This course is designed as an introduction to computer science and is designed for any student, not just those that want a career in computer science. In this course, students will learn how computers work, as well as basic programming and algorithms to solve problems. Students will also learn how computing innovations and computing systems (such as the Internet) work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical. *All students are required to take the AP Computer Science Principles Exam in May.* **Suggested Prerequisite: Completion of either Computer Programming or Introduction to Robotics.** ***This course runs every other year.***

AP COMPUTER SCIENCE A **(6 credits, one semester)**
Course #: 10157
AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. *All students are required to take the AP Computer Science A Exam in May.* **Prerequisite: Completion of Algebra 1 or demonstrated strength in mathematics.** ***This course runs every other year.***

Science Classes by Recommendation Only

BIOLOGY 2 **(6 credits; one semester)**
Course #: 030512

PRINCIPLES OF BIOLOGY **(6 credits, one semester)**
Course #: 03051F

PRINCIPLES OF CHEMISTRY **(6 credits, one semester)**
Course #: 044331

Social Studies

Students must complete 4 years of social studies: World History, U.S. History I, U.S. History II or AP U.S. History are required. Students must choose an additional class for their Senior year.

~~The Civic Action Project has been folded into U.S. History II and AP U.S. History.~~

	Grade 9	Grade 10	Grade 11	Grade 12
Required Courses	World History -or- World History H	U.S. History I -or- U. S. History I H Civic Action Project	U.S. History II -or- AP US History	AP Psychology Psychology Sociology Money and Power
Electives			AP Psychology Psychology Sociology Money and Power	

WORLD HISTORY I **(6 credits; one semester)**
Course #: 04051
HONORS WORLD HISTORY I **(6 credits; one semester)**
Course #: 04051H

World History I is a class designed to be an overview of the major themes in human history, spanning what historians call the modern era (1750 - the present). This course is aligned with 9th Grade English to explore the theme of conflict and cooperation. We analyze political, social, environmental, cultural, and economic themes and compare them across time in order to understand some basic human trends, behaviors, and phenomenons. Topics addressed in the course include revolution, industrialization, imperialism, war and genocide, and globalization. The course includes a wide variety of primary source materials (photos, movies, novels, poems, music, art) so that students can develop and use the same thinking skills and methods employed by historians (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation). An **Honors World History 9** course option is available within the class for students who are interested in exploring topics in greater depth.

U.S. HISTORY I **(6 credits; one semester)**
Course #: 04102
HONORS U.S. HISTORY I **(6 credits; one semester)**
Course #: 04102H

The history of the United States has been split between sophomore and junior year, taking a thematic approach both years to explore modern-day American issues and their historical throughlines. This course will help students become more skilled readers and interpreters of historical information and will expand their geographical knowledge of the United States. An **Honors US History** course option is available within the class for students who are interested in exploring topics in greater depth. The Honors course uses advanced and additional reading and is for highly motivated students with solid reading and writing skills.

CIVIC ACTION PROJECT **(6 credits; one semester)**
Course #: 041611
HONORS ACTION PROJECT **(6 credits; one semester)**
Course #: 041611H
Depending on changes to schedules, this course may be filtered into U.S. History II and AP U. S. History Students will identify an issue to focus on within the class-chosen lens. They'll research the root causes, stakeholders' interests, and possible solutions, before deciding on an action plan(s) to pursue, and reflect on their process and results afterwards. This is an interdisciplinary capstone-style project for all 10th graders, meeting 2018 requirements in the Social Studies Frameworks.

U.S. HISTORY II **(6 credits; one semester)**
Course #: 04103
The history of the United States has been split between sophomore and junior year, taking a thematic approach both years to explore modern-day American issues and their historical through lines. This course will help students become more skilled readers and interpreters of historical information and will expand their geographical knowledge of the United States. An **Honors US History** course option is available within the class for students who are interested in exploring topics in greater depth. The Honors course uses advanced and additional readings and is for highly motivated students with solid reading and writing skills.

AP U.S. HISTORY **(12 credits; year-long)**
Course #: 22263
The AP U.S. History course is specifically designed to assist students in passing the AP US History exam in May of their junior year. A score of 4 or 5 on the test gives students the opportunity to earn credit for two college level history classes. The course focuses on developing students' understanding of American history from approximately 1491 to the present. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes in nine historical periods, and develop and use the same thinking skills and methods employed by historians when they study the past (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation). The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by two full-year introductory college courses. **Students are required to take the AP US History exam in May.**

MONEY AND POWER: HOW THE ECONOMY WORKS **(6 credits; one semester)**
Course #: 04201
HONORS MONEY AND POWER: HOW THE ECONOMY WORKS **(6 credits; one semester)**
Course #: 04201H
A one-semester introduction to the basic tools of micro- and macroeconomic analysis. Microeconomics deals with consumers, firms, markets and income distribution. Macroeconomics deals with national income, employment, inflation and money. Students spend a considerable amount of time researching markets to develop a Shark Tank-style project.

SOCIOLOGY **(6 credits; one semester)**
Course #: 04258

HONORS SOCIOLOGY **(6 credits; one semester)**
Course #: 04258H

Sociology is the study of social life and the social causes of human behavior. Sociologists investigate and seek to understand the structure of groups, institutions, and societies and how people interact within them. Course topics include sociological perspectives, culture, groups, deviance, and an introduction to social inequalities such as class, gender, and race. The course uses a variety of games, role plays, videos, readings, and discussions to accomplish our learning goals. An **Honors Sociology** course option is available within the class for students who are interested in exploring topics in greater depth. Students earning honors credit will be expected to extend their learning by reading additional materials.

PSYCHOLOGY **(6 credits; one semester)**
Course #: 04254

This course will help students gain a deeper understanding of personality and behavior, as well as relationships with others. Some of the topics to be studied and discussed are scientific method, famous psychologists, child development theories, learning techniques, personalities, mental health issues, intelligence, emotions, adolescence, identity, and dreams. An objective of this course is to have all students develop a more positive self-concept.

AP PSYCHOLOGY **(6 credits; one semester)**
Course #: 04256

AP Psychology introduces students to the systematic and scientific study of human behavior and mental processes. While considering the studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with major units of study, including biological bases of behavior, cognition, development, learning, social psychology, personality, and mental and physical health. Throughout the course, students apply psychological concepts and employ psychological research methods and data interpretation to evaluate claims, consider evidence, and effectively communicate ideas. The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by two full-year introductory college courses. **Students are required to take the AP Psychology exam in May.**

Social Studies Classes by Recommendation Only

PRINCIPLES OF US HISTORY 1 **(6 credits; one semester)**
Course #: 40101F

PRINCIPLES OF US HISTORY 2 **(6 credits; one semester)**
Course #: 04106F

PRINCIPLES OF CIVIC ACTION PROJECT **(6 credits; one semester)**
Course #: 04161F

World Languages

Students must complete 4 years of social studies: World History, U.S. History I, U.S. History II or AP U.S. History are required. Students must choose an additional class for their Senior year.

The Civic Action Project has been folded into U.S. History II and AP U.S. History.

AMERICAN SIGN LANGUAGE I **(6 credits; one semester)**

Course #: 06801

This introductory course to American Sign Language (ASL) includes finger spelling, vocabulary, basic sentence structure, history, Deaf Culture, current trends, principles of linguistics and grammatical structures. Basic expressive skills using the manual alphabet, numbers and signs prepare the student to communicate on a basic level. Students in classes will consist of direct instruction, watching videos (primarily native signers), individual work, numerous interactive activities, signing projects, etc. This class is primarily taught in ASL (without voicing).

AMERICAN SIGN LANGUAGE II **(6 credits; one semester)**

Course #: 06802

The American Sign Language II course builds upon skills developed in American Sign Language I, extending students' ability to understand and express themselves in American Sign Language and increasing their vocabulary and speed. Typically, students learn how to engage in discourse for information or social purposes and to comprehend the language when signed slowly.

FRENCH I **(6 credits; one semester)**

Course #: 06121

French I is offered to students in grades 9-12 who are beginning the study of a language. The course is geared toward learning vocabulary essential to developing basic conversational proficiency. The department works at the entry level to inspire a lifelong interest in the French language and culture. Basic grammatical structures are acquired through consistent practice. At this level, listening and writing skills receive the most emphasis. Reading and writing are introduced throughout the semester. Time spent in the classroom on-task is the most important factor in making satisfactory progress in the French language. **This course may be taken as an 8th grader for high school credit.**

FRENCH II **(6 credits; one semester)**
Course #: 06122
HONORS FRENCH II **(6 credits; one semester)**
Course #: 06122H

French II is offered to students who have completed French I. This course builds upon the basic structures and patterns presented in the first year: the receptive skills of listening and reading and the productive skills of speaking and writing. These skills are acquired through consistent practice. At this level, listening and speaking continue to be emphasized and the skills of reading and writing are further incorporated. Participation in class remains the single most important factor for success. We will explore more culture and Francophone places will be researched to broaden the global understanding of the practical and enjoyable ability to speak French. **To receive honors credit,** a student must take ownership of the course material, complete all homework on time, produce at least one project which demonstrates higher order thinking and participate daily. Expectations for all students are that each student works to the best of their ability and contributes to the class by taking an interest in the deeper aspects of the culture.

FRENCH III **(6 credits; one semester)**
Course #: 06123
HONORS FRENCH III **(6 credits; one semester)**
Course #: 06123H

This third-year language course is offered to students who have successfully completed a level two course. This course expands upon the basic structure and patterns learned in the previous semesters. The emphasis is on the acquisition of practical vocabulary and the understanding and use of the different verb tenses. The target language is used in discussions and conversation and in grammatical explanations. Although students will be expected and required to do a significant amount of preparatory work outside of class, time spent in class on-task continues to be the single most important factor in learning the French language. French food, music and literature will be incorporated into the curriculum to continue to inspire individual interest in the culture. To receive Honors credit a student must take ownership of the course material, complete all homework on time, produce at least one project which demonstrates higher order thinking and participate daily. Expectations for all students are that each student works to the best of their ability and contributes to the class by taking an interest in the deeper aspects of the culture. **To receive Honors credit** a student must take ownership of the course material, complete all homework on time, produce at least one project which demonstrates higher order thinking and participate daily.

FRENCH IV/V HONORS **(6 credits, one semester)**
Course #: 01624H

Honors French IV/V is designed to reinforce and expand upon listening, speaking, reading and writing skills, and in general concepts and objectives presented and practiced in prior courses. In addition, authentic Francophone and French materials serve as a point of departure for more sophisticated class discussions, writing assignments and development of vocabulary and critical reading skills. Daily practice in class and focusing on the detailed points of grammar and proper pronunciation are an important part of this course. Each student must take ownership of the course material, complete all homework on time, produce at least one project which demonstrates higher order thinking and participate daily. Expectations for all students are that each student acquires language skills to the best of their ability and contributes to the class by taking an interest in the deeper aspects of the culture. At the advanced level all students are expected to do advanced level work and to pursue an independent interest within the language and culture.

SPANISH I **(6 credits; one semester)**
Course #: 06101

Spanish I is offered to students who are beginning the study of Spanish language and culture. The course objectives involve building the necessary vocabulary base in order to develop skills for listening, reading, writing and speaking in a second language. Students will build their listening and reading skills through a variety of activities. Eventually, when students have a sizable vocabulary base, they will have the skills to produce language and to communicate in the target language. Time spent in the classroom on-task is the most important factor in making satisfactory progress in Spanish. **This course may be taken as an 8th grader for high school credit.**

SPANISH II **(6 credits; one semester)**
Course #: 06102
HONORS SPANISH II **(6 credits; one semester)**
Course #: 06102H

These courses build upon the basic structures and patterns acquired in Spanish I. Students continue to increase proficiency in the second language by building their vocabulary base. Students are expected to understand the teacher as s/he speaks mostly in the target language in class. Students are expected to communicate in different formats such as through stories and dialogues. Time spent in the classroom on-task is the most important factor in making satisfactory progress in Spanish. Students continue to explore the geography and culture of Spanish-speaking countries. Students in the Honors course are required to demonstrate self-direction and a commitment to complete more challenging work. **In order to receive honors credit**, students need to participate in Spanish in class every day. Students should also be able to create stories and define words by using other vocabulary words in Spanish. In addition, students are expected to complete readings and projects on different aspects of Hispanic culture.

SPANISH III **(6 credits; one semester)**
Course #: 06103
HONORS SPANISH III **(6 credits; one semester)**
Course #: 06103H

This course builds upon the basic structures and patterns presented in Spanish II. Students must strive to speak only Spanish in class. Students continue to listen to and read stories. Students will be expected to practice conversational strategies in order to develop communicative competence in Spanish. Students will do a variety of activities that will improve their competence in Spanish. These are the vehicles through which they acquire additional vocabulary and grammatical structures. Students will demonstrate proficiency by narrating and writing stories, acting out stories and performing dialogues. Time spent in the classroom on-task is the most important factor in making satisfactory progress in Spanish. Students continue to explore the geography and culture of Spanish-speaking countries. **In order to receive honors credit**, students need to participate in Spanish in class every day. Students should also be able to create stories and define words by using other vocabulary words in Spanish. In addition, students are expected to complete readings and projects on different aspects of hispanic culture.

HONORS SPANISH IV/V **(6 credits; one semester)**
Course #: 06104H

Spanish V and VI continue to reinforce and expand listening, speaking, reading and writing skills. However, students are expected to be more precise, to develop better command of the language structures and concepts presented. Culture and authentic Latin American/Spanish materials continue to be the context in which these skills are practiced. Students are expected to speak entirely in Spanish, participate in sustained discussions and complete a significant amount of homework. Real life situations and studies will enhance the curriculum. Students will demonstrate knowledge of the subjects they study through cultural presentations and projects. Students will demonstrate conversational and written competency in Spanish by working independently and collaboratively to solve problems and accomplish goals.

Physical Education and Health

Students are required to take at least Introduction to Physical Education and Health to graduate.

INTRODUCTION TO PHYSICAL EDUCATION **(3 credits; one semester)**
Course #: 08001
This is an introductory look into Physical Education, where all students can feel comfortable learning and exploring the skills and techniques associated with a wide array of sports and activities. From traditional sports (ie: Basketball, Soccer, Tennis) to leisure time activities (ie: badminton, Kan Jam, and cornhole) this class is designed for students who are hoping to be exposed to a wide range of skills and tactics in a more socially engaging and less competitive PE setting. Students will also be taught on some basic fitness concepts and introductory weight room components. Ideal for 9th and 10th grade students looking for their first PE credit. This course is designed to give students a little taste of each of the more focused PE courses offered as PE electives. **(Please note that this is a prerequisite for all other Physical Education classes)**

HEALTH **(3 credits; one semester)**
Course #: 08057
Health education is a social science course that empowers students with the knowledge and skills needed to adopt and maintain healthy behaviors throughout their life. Students will spend more time in discussions to deepen their understanding of mental, physical, and social-emotional health issues and analyze cultural and environmental influences on health behaviors. Through projects, students will learn how to access valid health information and resources, practice health-enhancing behaviors, and advocate for personal, family, and community health.

INTRODUCTION TO STRENGTH AND CONDITIONING **(3 credits; one semester)**
Course #: 08005
This course will help you develop a personal fitness program and commit to lifestyle choices that will keep you looking and feeling good for a lifetime. This course requires a combination of weight training, cardio and flexibility exercises. This course focuses on physical fitness, beginning with a brief (1) introduction to the weight room and equipment, (2) gathering and analyzing baseline data through various personal fitness assessments, eventually followed by (3) individualized fitness goal setting. Students will engage in activities that will improve both health and skill-related elements of fitness. Students will learn or review the elements of fitness and exercise using the "F.I.T.T. principle" and use this to work toward and/or achieve their own personal fitness goals. This class is conceptually based and promotes the development and maintenance of personal fitness and problem solving throughout life. At the conclusion of this course students should feel comfortable walking into any weight room or fitness center and have a broader understanding of how to work out with a purpose. **Prerequisite: Intro to PE. Credit may be received more than once for this course.**

PERSONAL FITNESS AND GOAL SETTING **(3 credits; one semester)**
Course #: 08016
The purpose of this course is for students to build knowledge of fitness concepts, understand the influence of lifestyle on health and fitness, and work toward an optimal level of lifetime fitness for their own lives. Students must be motivated to set and work toward goals in cardiovascular fitness, muscular strength and endurance, flexibility, mental health, and nutrition. This class incorporates a wide variety of activities in order to target every one of these aspects. Want to get in shape? This is the class to do it! This is a highly individualized setting. Class sizes will be small, and will be in the weight room more often than not. **Prerequisite: Intro to PE AND Intro to Strength & Conditioning. Credit may be received more than once for this course.**

TEAM SPORTS AND RECREATION **(3 credits; one semester)**
Course #: 08002
This course is designed to develop a more collaborative and cooperative community through team sports and the use of the "Sports Ed Model". While working through multiple sports seasons, students will share the roles and responsibilities of "The Coach", "The Trainer" "The Encourager" and "the Sports Reporter". While fulfilling each of the "roles" for their team, students will learn the fundamental skills and techniques for participation in a variety of team sports and cooperative activities. The concept of teamwork, cooperation, competition and leadership will be learned through playing a variety of team sports and activities. This is a team centered sports class and students will be working within the same teams for the entire semester. In addition to skill acquisition, the course will focus on how communication and collaboration lead to more productive and cooperative team settings, both in and out of the "sports world". The course begins with students creating their own team names, game jerseys, chants and more! **Prerequisite: Intro to PE. Credit may be received more than once for this course.**

TRAIL WALKING **(3 credits; one semester)**
Course #: 080161
Let's hit the trails and enjoy time outdoors together. Be prepared to walk at a moderate pace on the trails each class, even on icy cold December days! Students are expected to be prepared with appropriate footwear and clothing. Snowshoes and crampons will be used to handle the snow and ice. Bonus - when we walk in groups, bears have more options! **Prerequisite: Intro to PE. Credit may be received more than once for this course.**

Driver's Education

Students must be a sophomore to take this class.

DRIVER'S EDUCATION **(1.5 Credits, one semester, every other day)**
Course #: 08151

This course, if funding is secured and permission granted, will run in the second semester each year for sophomores who wish to take the classroom portion of Driver's Education for free. Student will have the ability to sign up and pay for driving time at MTRS after completing this course.

Fine and Performing Arts

Students are required to take at least one Fine or Performing Arts Class to graduate.

MUSIC

All Music Classes May Be Repeated and Receive Credit

CONCERT BAND **(3 credits per semester; year long)**

Course #: 05101

Concert Band provides students with learning and performance opportunities on wind and percussion instruments. The primary focus is on the development, continuation, and expansion of basic skills begun in middle school band, with an increased focus on individual performance and more challenging repertoire. In addition to large group ensembles, individual growth and achievement are encouraged through participation in regional honor bands and private lessons. Topics and skills covered are the same as in middle school band, but with increased focus on independence and personal responsibility. Additional topics that may be covered include composition, improvisation, and musical analysis. **This course meets every other day.**

CONCERT CHORUS **(3 credits per semester; year long)**

Course #: 05110

Concert Chorus provides students with learning and performance opportunities in vocal music. The primary focus is on the development, continuation, and expansion of basic skills begun in middle school chorus, with an increased focus on individual performance and more challenging repertoire. In addition to large group ensembles, individual growth and achievement are encouraged through participation in regional honor bands and private lessons. Topics and skills covered are the same as in middle school chorus, but with increased focus on independence and personal responsibility. Additional topics that may be covered include composition, improvisation, and musical analysis. **No musical experience is required. This course meets every other day.**

MUSIC PRODUCTION **(3 credits; one semester)**

Course #: 05123

This class is meant for ANY student (no music background needed!) willing to learn the ins and outs of creating music using school provided Chromebooks. Students will learn the basics of music theory and using Digital Audio Workstations, students learn to use samples, create drum loops, all while exploring genres such as hip hop, rock, edm and pop. This is a project-based class where students will create songs and recordings based on project outlines. **No musical experience is required. This course meets every other day.**

MUSIC THEORY AND APPLICATION **(3 credits; one semester)**

Course #: 05113

In this course, students will examine the elements of music and describe music through different aspects of music theory. Students will learn the basic properties of music and sound including, pitch, rhythm, scales, chords, harmony, melody, timbre, and notation. Students will apply these elements in creating their own music according to their interests (songwriting, composition, improvisation, production, etc.) This is an AP level course with AP level work that does not receive AP credit. **This class meets every other day.**

JAM BAND **(3 credits; one semester)**
Course #: 05149
After many requests, Mohawk is now offering beginner piano, guitar and percussion classes in a group setting. Students will use school instruments to learn the fundamentals of piano, percussion and guitar, with the goal of performing their favorite songs. Students will learn to read notes on the staff and/or tabs. By the end of the semester students will have a strong grasp of performing on their instruments and ability to self guide their future progress. Class meets every other day. **No musical experience required! Instruments provided! This class meets every other day.**

JAZZ BAND/INTRO TO IMPROVISATION **(3 credits; one semester)**
Course #: 05106
To take this course students must already have experience playing an instrument. In this course students will have learning and performance opportunities on wind, electric and percussion instruments. Students will learn about stylistic features in jazz music as well as learn the basics of improvisation using a repertoire from the real book of jazz standards that are commonly played today. Students will also learn the basics of music theory in order to harmonically analyze the music they are playing. By the end of the semester students will have a strong grasp of improvisation on their instruments and ability to self-guide their future progress. **This class meets every other day.**

VISUAL ARTS

FOUNDATIONS IN ART AND DESIGN I **(3 credits; one semester)**
Course #: 05154
This is a hands-on, studio-focused course. Students will solve various 2-D visual challenges using principles of design and elements of art including drawing, painting and mixed media. Students will gain exposure to art worlds and movements, with contemporary and multicultural connections. The emphasis will be placed on broadening understanding of art as a visual language, gaining experience with a variety of tools, techniques, and skills and finding your own voice as an artist. Students will further develop their critique skills and visual literacy, and be able to articulate the driving forces behind their choices in both verbal and written formats. A sketchbook will be provided. **This class meets every other day.**

FOUNDATIONS IN ART AND DESIGN II **(3 credits; one semester)**
Course #: 05155
This is an extension of the learning that begins in FOUNDATIONS of ART & DESIGN 1. Students will continue to expand on 2-D skills as well as move into solving various 3-D visual challenges. In addition to drawing and painting, students will potentially use printmaking, paper-mache, plaster, the artform of assemblage, clay, and wire forms. Students will gain exposure to major ideas in sculpture with contemporary and historical connections. The emphasis will be placed on gaining facility with new materials while also composing art that is personal and meaningful. 3-D Studio work is organized around these 3 concepts in sculpture: a) What is form and how do we design in 3-D space? b) various additive and subtractive techniques c) using sculpture to express a message or narrative. Students will further develop their critique skills and individual creative voice, and be able to articulate the driving forces behind their choices in both verbal and written formats. A sketchbook will be provided. **Prerequisite: Foundations of Art and Design I. This class meets every other day.**

SPECIAL TOPICS: ART & DESIGN III **(3 credits; one semester)**

Course #: 05157

In 25-26 The Special Topics Course will be in Portraiture. Learn how to use a variety of media, techniques, and styles to create artwork of and about people! This genre is expansive and includes everything from realism to abstraction to symbolism. We will try different approaches to making art and explore your personal interests. This will be a studio-based course where hands-on learning will take center stage as we develop our skills for creative expression. **Prerequisite: Foundations of Art and Design 1 and 2 or Equivalent 6 credits of Visual Art. This class meets every other day.**

CERAMICS I **(3 credits; one semester)**

Course #: 05159

Learn how to make functional and sculptural pieces out of clay! We will use hand building techniques to create various vessels and art pieces while learning how to craft in the medium of clay. We will build using the pinch pot, coil, slab and other hand-building methods. Our class will travel to The Handle Factory Community Clay studio in Buckland to fire and glaze our work. Come try this fun, challenging, and time-honored artform and learn how to create original pieces you can use everyday. A sketchbook will be provided. **Prerequisite: 1 High School Level Art Classes. This class meets every other day. Note: This course has a strict maximum of 12 students.**

CERAMICS II **(3 credits; one semester)**

Course #: 051592

Build on your knowledge and skill developed in Ceramics 1 and explore the medium through thematic assignments. We will build using the pinch pot, coil, slab and other hand-building methods. Our class will travel to The Handle Factory Community Clay studio in Buckland to fire and glaze our work. Come deepen your ceramic prowess with this fun, challenging, and time-honored artform. A sketchbook will be provided. **Prerequisite: Ceramics 1. This class meets every other day. Note: This course has a strict maximum of 12 students.**

WOODWORKING **(credits and length TBD)**

Course #: 17006

There is a potential for a Woodworking class to return semester 2 of the 25-26 school year. Many details are still being worked out as of the printing of this Course Catalog. Stay tuned!

DIGITAL PHOTOGRAPHY I **(3 credits; one semester)**

Course #: 11054

Digital Photography I is a introductory photography course that teaches students how to use a DSLR camera, edit their photos in Adobe Photoshop, and make prints. This project-based course will expose students to the history of photography and major kinds of photography through a series of photo projects. They will be challenged to develop and apply their own creative ideas. **This class meets every other day.**

DIGITAL PHOTOGRAPHY II **(3 credits; one semester)**

Course #: 110542

Extend your photography skills with Digital Photography II. This advanced level class will challenge students to hone their photography skills with more involved photo projects. Students will be expected to take their cameras into their community and take photos outside of school. There will be a variety of readings, writing assignments, and photo projects to deepen students' photo skills. **Prerequisite: successful completion of Digital Photography I or permission of the instructor. This class meets every other day.**

B&W DARKROOM PHOTOGRAPHY **(3 credits; one semester)**
Course #: 11053
This course introduces students to the world of film and crafting prints in the photographic darkroom. Students should have taken Digital Photo I to come into the course with a foundation in cameras and exposure. Students will develop a photographic practice with a manual SLR camera, process their own film, and make prints. Space is limited in this course due to the size of the darkroom and priority will be given to older students and students who have completed previous photography courses. **Prerequisite: successful completion of Digital Photography I. This class meets every other day.**

MEDIA ARTS

YEARBOOK EDITORIAL BOARD **(3 credits, one semester)**
Course #: 11104

The Yearbook Editorial Board is solely responsible for the production of MTRS' annual yearbook. This class will function as a creative workshop where students will design the yearbook from the ground up. They will pick themes, take photos, build spreads, and work as a team to capture the year. Students must be available outside of school hours at times to photograph school events. This is a class for people who want to collaborate on a long-term creative project. **This class meets every other day and may be taken in multiple years for credit.**

MULTIMEDIA JOURNALISM **(3 credits, one semester)**
Course #: 10204
Multimedia Journalism will have students develop their media literacy skills while also learning various methods of media production. Students will spend time reading, listening, watching and analyzing various forms of media. This project-based course will also push students to hone their communication skills by having them collaborate to produce writing, audio, and video projects. Projects students have developed in the past include a school newspaper, a video series, a book of essays, and a podcast. **This course meets every other day.**

DOCUMENTARY FILMMAKING **(3 credits; one semester)**
Course #: 11056
Documentary filmmaking is a course that has students developing their practical filmmaking skills with a focus on non-fiction content production. Students will produce a range of video products from PSAs and interviews, to fully formed short documentary films. Students will also spend time researching documentary filmmakers and watching and analyzing documentary films. **Prerequisite: successful completion of Digital Photography I. This class meets every other day.**

Specialty Courses by Recommendation Only

INTERNSHIP-COFFEE SHOP **(3 credits; one semester)**
Course #: 889112

VOCATIONAL SKILLS **(6 credits; one semester)**
Course #: 721521

ACADEMIC SUPPORT **(3 credits, one semester)**
Course #: 220031

ACADEMIC SUPPORT **(6 credits, one semester)**
Course #: 220033

2024-2025 MIDDLE SCHOOL COURSE DESCRIPTIONS

REQUIRED COURSES

ENGLISH COURSES

daily, full year

English Language Arts (Grade 7)
7th Grade English Language Arts (ELA) is designed to challenge students in a positive and productive way, to build their knowledge of the world around them, and to hone the skills they need to be strong readers, critical thinkers, skilled writers, and excellent communicators. The curriculum features rich, award-winning books that will awaken and expand students' natural curiosity. Through the study of fiction and nonfiction texts, famous works of art, videos, photographs, and more, students engage deeply with rich, meaningful content, which provides a strong intellectual and cultural foundation. Primary texts include *The Canterbury Tales, The Midwife's Apprentice, Code Talker, Farewell to Manzanar*, and *Animal Farm*.

English Language Arts (Grade 8)
Through close reading, discussion, pairings with visual art and music, and more, we engage in a deep exploration of different genres of books and different types and styles of writing. Primary texts are *The Crossover* by Kwame Alexander, *All Quiet on the Western Front* by Erich Maria Remarque, *A Midsummer Night's Dream*, by William Shakespeare, and *Claudette Colvin: Twice Toward Justice* by Phillip Hoose.

MATHEMATICS COURSES

daily, full year

Classroom instruction focuses on inquiry and investigation of mathematical ideas through problem-solving. Rich tasks support students to look for patterns, engage deeply, and develop conceptual fluency. With the teacher facilitating, students take on more responsibility for their learning by sharing their strategies, solutions, and new understandings through discourse and collaboration.

Math (Grade 7)
7th Grade Mathematics: This is a year-long mathematics course. Students will engage in tasks and mathematical problems that promote learning of the following topics: two-dimensional geometry; integers and rational numbers; similarity; ratios, rates, percentages, and proportions; linear relationships; probability and expected value; and making comparisons and predictions. Classroom instruction focuses on inquiry and investigation of mathematical ideas through problem-solving. Rich tasks support students to look for patterns, engage deeply, and develop conceptual fluency. With the teacher facilitating, students take on more responsibility for their learning by sharing their strategies, solutions, and new understandings through discourse and collaboration.

Math (Grade 8)
8th grade math is a year long mathematics course that will preview and prepare students for algebra 1 in the following year. Students will engage in tasks and mathematical problems that promote learning of the following topics: linear models and equations, solving linear systems graphically, inverse variation, exponential functions, rules for exponents, scientific notation, equivalent expressions, identifying, solving and representing linear and quadratic equations, the Pythagorean theorem, converse, square roots, cube roots, irrational and real numbers, circles, symmetry, congruence, and coordinate geometry

SCIENCE COURSES daily, full year

Science (Grade 7)
7th grade science focuses on Systems & Cycles. Concepts & understanding are developed through hands-on investigative, project-based activities. In addition to content, students learn scientific literacy, and skills such as scientific argument & problem solving, experimental design, developing models, and collecting data. We honor and utilize our curiosity, honesty, open-mindedness, skepticism, and creativity.

Science (Grade 8)
8th Grade science focuses on Cause and Effect. We use a high-quality science curriculum to teach students about how atoms and molecules interact to explain the substances that make up the world around them; how the human body systems work together to produce the energy that all life requires; the role of genetics in reproduction, heredity, and artificial selection; and the role of the sun, continents, and the oceans in weather and climate. Being able to analyze phenomena for evidence of causes and processes that often cannot be seen, and being able to conceptualize and describe those, is a significant outcome for grade 8 students. This curriculum specifically follows the NGSS Standards, meaning that multiple disciplines are integrated within a single unit. By centering our units around student sense-making and problem-solving of phenomena, the focus of learning shifts away from learning about topics and towards figuring out why or how things happen in the world. This promotes student-generated questioning and thus supports students' agency for wanting to build their own scientific knowledge. As a result, students leave with deeper understanding and a process that can more readily be applied to other real-world phenomena in the future.

SOCIAL STUDIES COURSES daily, full year

Social Studies (Grade 7)
7th Grade Social Studies: This course is designed to challenge your ability to analyze primary source material, enhance your understanding of causation and chronology, and augment your comprehension of the social, political, interaction with environment, cultural, and economic themes that run throughout World History. This course will not only serve to further your understanding of historical content, but also develop sharper reading and writing skills. We will examine the scope of history through a global lens and you will often serve as the historian as you interpret historical evidence, determine its relevance, identify point of view, and recognize the strengths and weaknesses that exist within the document. Critical thinking skills will be vital as the goal of this class is not to have you simply recount historical facts. We will be exploring topics from ancient history to local geography using inquiry based lessons.

Social Studies: Civics (Grade 8)
Throughout the year, we look at multiple sources of evidence to investigate our year-long, overarching essential question: "What is the evolving story of America?" We also seek to recognize and prioritize the importance of youth voices, including your voice, by asking: "What is *your* part in the story?" We will build and strengthen our knowledge and skills so we can shape the country we want to live in, including during the student-led Civic Action Project (CAP), a major component of our year together. The four major themes of our studies will be Community, Identity, Justice, and Action. Our units will teach the required Civics standards from the Massachusetts Curriculum History and Social Science Framework. Together we will build our understanding of the development of American constitutional democracy, the modern relevance of the Constitution and Bill of Rights, the rights and responsibilities of citizens, the functions of local, state, and federal government, and much more. In addition to Civics content, we will develop and practice our skills in critical thinking, note-taking, organization, studying, reading, writing, research, speaking and listening, and cooperative learning. We will have lots of fun along the way with interactive learning experiences!

ADVISORY/CREW COURSES daily, full year

Advisory/Crew (7th Grade)
Crew is a time for students to get to know other members of their class through a variety of community-building, goal-setting, and collaborative educational opportunities. We start the year by getting to know one another and building a community. We also use this time for advisors to check in on students' academics, seek help if they need it, and work on student-led conferences. Students are challenged during this time to work as a team from presenting in front of the entire school to creating group projects. Crew is the place where students develop both social and communication skills with their peers.

Advisory/Crew (8th Grade)
Crew is a time for students to get to know other members of their class through a variety of community-building, goal-setting, and collaborative educational opportunities. We start the year by getting to know one another and building a community. We also use this time for advisors to check in on students' academics, seek help if they need it, and work on student-led conferences. Students are challenged during this time to work as a team from presenting in front of the entire school to creating group projects. Crew is the place where students develop both social and communication skills with their peers.

Middle School classes by Recommendation Only

These courses are for 7th and 8th grade and may be repeated with permission.

MIDDLE SCHOOL ELA **(Varies)**
Course #: 51037

PRE-VOCATIONAL SKILLS **(Varies)**
Course #: 72152

EXPLORATORY COURSES

Exploratory Courses may not run every year.

COMPUTER SCIENCE COURSES

every-other-day, one quarter

Computer Science (Grade 7)
Using the code.org CS Discoveries curriculum, students start off exploring problem solving and are introduced to computer science through a series of puzzles and challenges. Following this introduction, students use their problem-solving skills, creative expression, and teamwork to work to create and share content on their very own web pages. This class sets the groundwork for the 8th grade Computer Science class.

Computer Science (Grade 8)
Students continue working in the Code.org CS Discoveries curriculum to learn the basics of JavaScript coding to build interactive animations and games. Students work through a series of puzzles and challenges, learning new blocks of code with each subsequent lesson. Students will start by plotting shapes in the game lab, then working up to using sprites, making their images move, and building in keyboard and mouse controls, eventually programming their own simple computer games.

WELLNESS COURSES

every-other-day, one quarter

Physical Education (Grade 7)
This is an introductory look into Physical Education, where all students can feel comfortable learning and exploring the skills and techniques associated with a wide array of sports and activities. From traditional sports (ie: Basketball, Soccer, Tennis) to leisure time activities (ie: badminton, Kan Jam, and cornhole) this class is designed for students who are hoping to be exposed to a wide range of skills and tactics in a more socially engaging and less competitive PE setting. Students will also be taught on some basic fitness concepts and introductory weight room components. In the Fall Semester 7th Grade PE Students will participate in our Ride for Focus Mountain Bike Program.

Health (Grade 8)
Through discussion-based activities, students will become more aware of different dimensions of their health and wellness, including physical, mental, and social. Students will examine how different factors, such as thoughts, beliefs, resources, and relationships, can affect these dimensions in positive and negative ways, and may influence their choices and behaviors. Finally, students will learn skills and uncover resources that can help them take responsibility and gain control over aspects of their life that may sometimes seem overwhelming… such as managing stress or navigating difficult relationships or social situations.

WORLD LANGUAGE COURSES

7th Grade students are scheduled to take both Exploratory World Language and Introduction to American Sign Language.
Eighth-grade students can choose between Spanish 1 & French 1. In high school at MTRS, students are required to take two world language courses in the same language.

Spanish 1 daily, one semester

Spanish I is offered to students in grades 8-12 who are beginning the study of Spanish language and culture. The course objectives involve building the necessary vocabulary base in order to develop skills for listening, reading, writing and speaking in a second language. Students will build their listening and reading skills through a variety of activities. Eventually, when students have a sizable vocabulary base, they will have the skills to produce language and to communicate in the target language. Time spent in the classroom on-task is the most important factor in making satisfactory progress in Spanish.

French 1 daily, one semester

French I is offered to students in grades 8-12 who are beginning the study of a language. The course is geared toward learning vocabulary essential to developing basic conversational proficiency. The department works at the entry level to inspire a lifelong interest in the French language and culture. Basic grammatical structures are acquired through consistent practice. At this level, listening and writing skills receive the most emphasis. Reading and writing are introduced throughout the semester. Time spent in the classroom on-task is the most important factor in making satisfactory progress in the French language. To receive Honors credit a student must take ownership of the course material, complete all homework on time, produce at least one project which demonstrates higher order thinking and participate daily. Expectations for all students are that each student learns to the best of their ability and contributes to the class by taking an interest in the deeper aspects of the culture.

Middle School Exploratory World Language (Grade 7) every-other-day, one quarter

Exploratory World Language in French and Spanish is offered as a semester-long 7th grade option at Mohawk Trail. Students will learn basic greetings, numbers, days, months, family, and other essential vocabulary, along with the alphabetical and phonetic systems of the target languages. Students also study the influence of the language in the United States, the cultures of countries in which each language is spoken and historical/geographical influences that shape them.

Middle School Introduction to American Sign-Language (grade 7) every-other-day, one quarter

This introductory course to American Sign Language (ASL) introduces finger spelling, vocabulary, basic sentence structure, history, Deaf Culture, current trends, principles of linguistics and grammatical structures. Basic expressive skills using the manual alphabet, numbers and signs prepare the student to communicate on a basic level. Students in classes will consist of direct instruction, watching videos (primarily native signers), individual work, numerous interactive activities, signing projects, etc. This class is primarily taught in ASL (without voicing).

FINE AND PERFORMING ARTS COURSES

Band (Grade 7 & 8) every-other-day, full year
The focus of this class is on explorational and community building experiences for students who want to learn how to play an instrument and how to play in front of their peers and a live audience with confidence and artistry. Students will pick one instrument they want to learn how to play or by recommendation from Ms.Clough, instruments to choose from in middle school are alto and tenor saxophone, clarinet, trumpet, euphonium, trombone, tuba and percussion. Repertoire will consist of popular songs, songs from BIPOC composers and music from differing cultures. Multiple concerts will be held open to the public for students to display their talents.

Chorus (Grade 7 & 8) every-other-day, full year
In this class students are engaged in a performing ensemble curriculum where the development of each singer's potential is emphasized daily while being immersed in a community of musicians.
They will discover weekly how to execute vocal techniques, concepts, methods and music theory skills that will help them improve individually as a singer and collectively as a choir. Repertoire will consist of popular songs, songs from BIPOC composers and music from differing cultures. Multiple concerts will be held open to the public for students to display their talents.

Art (Grade 7 & 8) every-other-day, semester
At MTRS we believe that the arts provide important and unique opportunities for all students to build confidence, creative know-how, and skills for collaboration and communication. Learning in the visual arts supports critical thought, self-discovery, and empowered learning and making. In an increasingly visual world, it is important that students gain literacy, facility, and appreciation for the ways that visual culture is connected to our lives. In Middle school we build on prior art curricula to meet students at any level of experience and to support their growth, expression, and pursuit of advanced training, should they desire. All courses center hands-on project-based learning to foster skill, understanding, and creative voice. At MTRS everyone belongs in the studio!

Photography (Grade 8) every-other-day, semester
In this hands-on course, students will be exposed to the materials, processes, and techniques for taking photographs. They will also be involved in taking photographs for the Yearbook.

SCIENCE COURSES

Engineering Design (Grade 7 & 8) every-other-day, semester
Over the course of a semester, middle school students practice the Engineering Design Process through project-based engineering challenges that are connected to real world situations. Students work in different team configurations for projects that may last from one day to several weeks. Students spend half of a quarter designing and constructing Lego Spike Prime Robots that can solve simple and even complex tasks. All levels of experience are welcomed! Each semester culminates with The Bridge Project that challenges students to build the strongest bridge possible. This project has been happening in the MTRS middle school since 2016. Engineers are encouraged to make what already exists even better!

Climate Studies (Grade 7 & 8) every-other-day, semester
In this hands-on course, students will learn about impacts on climate change, specifically focusing on the local environment.