

## 2024-2025 6th Grade Elective Course Descriptions

6th Grade Electives	Number Of Quarters	Description
Band 6: Woodwinds	4	6th Grade Band is continuing to develop the music skills and abilities from 5th grade band. We will work out of the Essential Elements 2000 book 1 and students will receive a variety of band literature from traditional band pieces to pop music. Students will work on their technical abilities on their instruments and develop their sound as they continue playing. <b>Instruments include: flute, clarinet, bass clarinet, alto saxophone, tenor saxophone, bari saxophone, oboe, and bassoon.</b> There will be three concerts a year. Students are separated into two periods based on the instrument they play.
Band 6: Brass & Percussion	4	6th Grade Band is continuing to develop the music skills and abilities from 5th grade band. We will work out of the Essential Elements 2000 book 1 and students will receive a variety of band literature from traditional band pieces to pop music. Students will work on their technical abilities on their instruments and develop their sound as they continue playing. <b>Instruments include: trumpet, french horn, trombone, baritone/euphonium, tuba and percussion.</b> There will be three concerts a year. Percussion is by audition only with Ms. Pflueger (email: <a href="mailto:kpflueger@revereschools.org">kpflueger@revereschools.org</a> ) Students are separated into two periods based on the instrument they play.
Orchestra 6	4	This class continues to develop the musical skills acquired in 4th and 5th grade Orchestra. Students use the Essential Elements Book 2 for their instrument to focus on progressively harder rhythms and finger patterns. A variety of musical terms and string-specific techniques are also introduced. Students continue developing their ability to play as a group through concerts.
Choir 6	4	Sixth Grade Choir introduces students to a wide variety of music and topics throughout the year. We will learn how to read music, notes, and rhythms and build on those skills throughout the year. Students will sing a wide range of music such as pop, classical, world music. Students will learn the proper techniques to singing such as breathing, posture, and tone production. There will be opportunities to perform solos for concerts. We will have up to 3 after school concerts throughout the year to showcase songs learned in class.
Gen Music 6	1	6th Grade General Music will continue to build off of skills practiced and learned from 5th grade. This course will include reading music in treble clef and bass clef, rhythm, dynamics, and musical symbols and their use in music using exploration of music styles and genres through the decades.
Art 6	1	The Art 6 course is designed to allow students to learn and experience various forms of art-making while providing opportunities for creativity and expression. The course curriculum will focus on the basic elements of art and design (line, color, shape, form, texture, value, and space) and will provide a strong foundation of developing artistic skills and creative thinking. Course projects will include a wide variety of art methods such as drawing, painting, collage, multimedia, and sculpture.

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Health 6**	1	<p>6th Grade Health is a students' first health course of their education. Health 6 will introduce the Health Triangle; physical health, mental/emotional health and social health, and the importance of balancing the three sides to maintain optimum health and wellness. Students will learn the importance of developing healthy habits in all 3 domains. Health 6 also allows students to learn important health skills like decision making, goal setting, refusal skills and communication skills. Students will learn how to practice these skills to maintain a healthy lifestyle. The students will learn how to recognize and deal with bullying and cyberbullying. Health 6 is also designed to teach students the value of healthy relationships and how to nurture them. Health 6 will begin substance abuse education with a unit on Tobacco and E-Cigarettes/Vaping. We will discuss how peer pressure can affect decisions related to these products, as well as the short and long-term effects of these products on our physical, mental/emotional and social health. Personal Health Care will also be covered in class. There will be some homework, hands-on activities, videos and assessments.</p>
Lego Spike Prime Robotics 6	1	<p>This is an introductory course in Robotics using the Lego Spike Prime Robotics. Students will engage in the 4 C's, communication, critical thinking, collaboration, and creativity while learning the basics of scratch/python programming. Spike Prime is designed to help students develop the abstract and critical thinking skills they need to solve complex problems. The standards-aligned STEAM lessons provide a variety of learning experiences that relate directly back to students' real-life questions and observations, building their confidence and preparing them for life beyond school. Students will find themselves engaged in 5 different units plans: Kickstart a Business, Competition Ready, Invention Squad, Life Hacks and Training Trackers. <b>This class is a recommended course for those wanting to take the Lego Space Challenge in 7th grade.</b></p>
Introduction to World Languages 6	1	<p>The first level of world languages is a 9-week introductory elective course which exposes students to the culture, pronunciation, basic vocabulary and other foundational elements of two of the three languages that we offer at Revere: Spanish and French. This exposure gives students the opportunity to begin to build both their knowledge base and ultimate proficiency as they practice all aspects and skill sets of language: speaking, reading, writing, and listening and will help them to successfully progress through their language studies at Revere Middle School. At the end of the 9-week period, the world language grade will be a cumulative reflection of both language sessions. This course is a prerequisite/strongly recommended level both for working toward developing the highest possible level of personal proficiency as possible as well as for supporting success in the next levels of the languages that we offer at Revere Middle School.</p>

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Coding 6 (Only offered for two 9 weeks sessions)	1	<p>There is <b>NO</b> prerequisite for taking coding in 6th grade. The coding curriculum is designed to be personalized. Students at any level will be challenged to further their coding skills.</p> <p><b>In Learn to Code 1</b>, students will begin to employ Swift a powerful and intuitive programming language created by Apple that makes programming easier and more flexible. For first-time coders, there's Swift Playgrounds, an iPad app that makes getting started fun and interactive. By exploring and solving rich puzzle worlds, students develop coding skills that become the foundation of their programming knowledge.</p>
Creative Technology 6 (Only offered for two 9 weeks sessions)	1	<p>This course prepares students to use their iPads in an effective and creative manner. The course will include the following topics and more.</p> <p>-iPad applications and how they all connect. Keynote, iMovie, Garage Band, Numbers, Notes, and other 3rd party applications.</p> <p>iOS (iPad operating system and settings) / Electronic note taking strategies / Coding basics in Scratch.</p>
Digital Citizenship***	1	<p>In this 9 week elective course students will study cyber civics and how to be an upstanding digital citizen in order to equip students with the tools to build a positive digital identity. This course will also cover digital skills such as keyboarding, digital organization along with software skills so that students are prepared for middle school and beyond.</p>
Physical Education 6*	1	<p>This 9 week course is designed for 6th grade students to provide them with a foundation of knowledge, skills, and values necessary for the development of a physically active lifestyle. The course content has a wide variety of opportunities for students to engage in: Introduction to Fitness, Fitnessgram Fitness Testing, Partner Sports, Team Sports and Leisure Sports. The course is structured for students to be challenged, improve their physical fitness levels and most importantly have fun!</p>

\*All students must take PE for at **least one quarter** during grades 6-8

\*\*All students must take health in 6th and 7th grade

\*\*\*All students must take Digital Citizenship in 6th grade

## 2024-2025 7th Grade Elective Course Descriptions

7th grade Electives	Number of quarters	Description
Band 7: Woodwinds	4	7th Grade Band is a continuation of 5th and 6th grade band. We continue to develop our skills and abilities from 6th grade band. We will work out of the Essential Elements 2000 book 1 and Essential Elements 2000 book 2 and students will receive a variety of band literature from pieces of music for contest to pop music. Students will continue to work on their technical abilities on their instrument and develop their sound. Students are allowed to join Jazz Band (practices during RISE/after school). Students are allowed to attend solo and ensemble competitions and the entire band attends large group contests in May, where they receive a rating based on their performance. Students are separated into two periods based on the instrument they play. <b>Instruments include: flute, clarinet, bass clarinet, alto saxophone, tenor saxophone, bari saxophone, oboe, and bassoon.</b>
Band 7: Brass & Percussion	4	7th Grade Band is a continuation of 5th and 6th grade band. We continue to develop our skills and abilities from 6th grade band. We will work out of the Essential Elements 2000 book 1 and Essential Elements 2000 book 2 and students will receive a variety of band literature from pieces of music for contest to pop music. Students will continue to work on their technical abilities on their instrument and develop their sound. Students are allowed to join Jazz Band (practices during RISE/after school). Students are allowed to attend a solo and ensemble competition and the entire band attends a large group contest in May, where they receive a rating based on their performance. Students are separated into two periods based on the instrument they play. <b>Instruments include: trumpet, french horn, trombone, baritone/euphonium, tuba, percussion.</b> Percussion is by audition only with Ms. Pflueger (email: <a href="mailto:kpflueger@revereschools.org">kpflueger@revereschools.org</a> )
Orchestra 7	4	This class continues to develop the musical skills achieved in previous Orchestra classes. Students continue in the Essential Elements books to focus on more complex rhythms and finger patterns. An increasingly more difficult array of string-specific techniques are also introduced. Students continue developing their ability to play as a group through concerts.
Choir 7	4	7th Grade Choir will continue to build on the foundations learned in 6th Grade Choir. We will continue to read more challenging music and fine tune the skills learned in 6th Grade. Students will sing even more diverse songs throughout the school year, exposing them to more music. There will be solo opportunities for concerts, as well as the possibility of singing a solo or within a small group at a competition. There will be up to 4 after school concerts for 7th Grade Choir, including the Solo and Ensemble Contest.
Art 7	1	The Art 7 course is designed to allow students to explore a wide range of art materials and techniques. Course curriculum will focus on the elements and principles of design, building students' knowledge of art concepts and techniques while developing stronger artistic skills. Students will engage in art projects that allow exploration of various art styles and incorporate personal interests into the work they create. Course projects include art methods such as drawing, painting, 2D design, collage.

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Pottery and Sculpture 7	1	<p>In this course, students will expand their knowledge and experiences creating 3-Dimensional artworks. By using a variety of tools, materials, and techniques, students will transform 2-Dimensional ideas into 3-Dimensional forms of pottery and sculpture that reflect students' creativity. Students will engage in hands-on projects with clay and other 3D materials, developing students' problem-solving, critical thinking, and artistic skills.</p>
Integrative STEM Courses 7 (offered only two 9 week sections)	1	<p>Integrative STEM education is about intentionally combining math and science concepts with technology and engineering skills to solve problems. Students who engage in integrative STEM projects in order to solve authentic problems develop communication and collaboration skills, as well as sustained interest in STEM disciplines and increased competency levels.</p> <p>Each course in our STEM solution allows students the opportunity to explore real-world problems, reflect on the problem-solving process, develop design solutions, and solve problems in science, technology, engineering, and math fields.</p> <p>The STEM courses are designed with an emphasis on project-based learning with real-world scenarios. Each STEM course is presented with a Project Challenge, whose overarching path is proposed to students at the start of the course. Students then use the Engineering Design Process to complete various Support Projects as they progress on the Challenge path.</p> <p>Most Student will complete only 2 course during the 9 weeks , they can come back in 8th grade and take additional courses of interest if they so choose( individual courses can not be repeated in 8th grade)</p> <p><b>Advanced Manufacturing courses:</b>          Introduction to Aerodynamics          Introduction to CNC Lathe          Introduction to CNC Mill          Introduction to Computer-Aided Design with 3D Printing          Introduction to Engineering and Stress Analysis          Introduction to Exploring Electricity          Introduction to Fiber Optics and Lasers          Introduction to Introduction to Plastics</p> <p><b>Mechatronics Courses</b>          Introduction to Automation and Robotics</p> <p><b>Environmental Discovery courses</b>          Introduction to Environmental Technology and Water          Introduction to Alternative Energy</p>

## 2024-2025 7th Grade Elective Course Descriptions

<p style="text-align: center;">Lego Robotics Space Challenge 7 (offered only two 9 week sections)</p>	1	<p><b>6th grade Spike Prime robotics is recommended or at least have background knowledge using Lego Robotics if you desire to take this course.</b> This is an advanced EV3 lego robotics course. <b>Students must have basic knowledge using Lego EV3 Mindstorms and have some background in programming of the EV3 robots.</b> The EV3 Mindstorms Lego Space Challenge consists of 9 learning Missions plus 7 real-world Space Challenges that require communication, collaboration, critical thinking and creativity to solve real world problems. Students will work in teams of 2.</p>
<p style="text-align: center;">Personal Transitions Grade 7</p>	1	<p>This course will expose students to the opportunity of exploring the idea of safety and sanitation in the kitchen, master food measuring techniques, learn new cooking terms, review the use of specific kitchen equipment and learn about recipe reading. Students will also learn to complete lab sheets and work plans as well as create many semi-homemade, nutritious and fun recipes. Furthermore, learners will have the opportunity to review some basic sewing skills, and will finish the course by acquiring basic sewing skills with the creation of a fleece blanket they will treasure for a long time.</p>
<p style="text-align: center;">Introduction to French****</p>	1	<p>The second level of world languages is a <b>prerequisite/strongly recommended level</b> for all students wanting to take French I in the eighth grade. Students who choose this class will be taking it for the entire nine-week period as a direct preparation for the high school level of that course which is offered in the eighth grade. The course will briefly review and then expand upon what was learned during the sixth grade IWL elective opportunity. Students will continue to refine all aspects and skill sets of language: speaking, reading, writing, and listening while working to increase proficiency in that language through concentrated focus on vocabulary, culture, and basic grammatical concepts. <b><u>A grade of C or higher is expected for continuation into the next level of that language that is offered in 8th grade.</u></b></p>
<p style="text-align: center;">Introduction to Spanish****</p>	1	<p>The second level of world languages is a <b>prerequisite/strongly recommended level</b> for all students wanting to take Spanish I in the eighth grade. Students who choose this class will be taking it for the entire nine-week period as a direct preparation for the high school level of that course which is offered in the eighth grade. The course will briefly review and then expand upon what was learned during the sixth grade IWL elective opportunity. Students will continue to refine all aspects and skill sets of language: speaking, reading, writing, and listening while working to increase proficiency in that language through concentrated focus on vocabulary, culture, and basic grammatical concepts. <b><u>A grade of C or higher is expected for continuation into the next level of that language that is offered in 8th grade.</u></b></p>

## 2024-2025 7th Grade Elective Course Descriptions

Coding 7	1	<p>(Course may be taken up to 2 times/year.)</p> <p>There is <b>NO</b> prerequisite for taking coding in 7th grade. The coding curriculum is designed to be personalized. Students at any level will be challenged to further their coding skills.</p> <p>This course consists of three different levels. Students will pick up where they left off in 6th grade, or begin with Learn to Code 1 if the course was not taken in 6th.</p> <p><b>In Learn to Code 1</b>, students will begin to employ Swift, a powerful and intuitive programming language created by Apple that makes programming easier and more flexible. For first-time coders, there's Swift Playgrounds, an iPad app that makes getting started fun and interactive. By exploring and solving rich puzzle worlds, students develop coding skills that become the foundation of their programming knowledge.</p> <p><b>In Learn to Code 2</b>, students will build on their fundamental knowledge of Swift. They'll journey beyond simply solving puzzles and create worlds of their own. They'll learn about variables and types, the coding constructs that allow them to store and access information. These new skills, along with initialization and parameters, will give them even more ways to use code to interact with their characters and the puzzle world, allowing them to change the rules of the world itself.</p> <p><b>In Learn to Code 3</b>, students will expand their coding skills to start thinking more like an app developer. Encountering the interstellar space of Blu's universe, they'll build a set of creative tools as they explore powerful coding concepts that professional developers use. As they learn about graphics and coordinates, they'll be able to place and manipulate images, then combine these techniques with touch events to paint artistic shapes in space. After a brief encounter with strings, they'll be launching words and even emoji into space. Add speech synthesis and sound effects, and before long, they'll be filling the silence of Blu's universes with voices and sounds. Finally, they'll explore event handlers using real events, such as finger movements or taps, to trigger their code. With event handlers, they'll choreograph dancing aliens, turn the universe into a giant musical instrument, or build their own digital lock. By the time they finish, they'll be combining their skills expertly, writing their most advanced code yet!</p> <p><b>Beyond Learn to Code</b>, Curriculum extensions in other coding languages are currently being explored and will be added as options for students that master the Learn to Code curriculum. These extensions will include experiences in augmented reality, artificial intelligence and machine learning, computer science, web design, and more.</p>
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## 2024-2025 7th Grade Elective Course Descriptions

Creating Games in Scratch 7	1	<p>Scratch is a programming language and an online community where students can program and share interactive media such as stories, games, and animation with people from all over the world. As students create with Scratch, they learn to think creatively, work collaboratively, and reason systematically. Scratch is designed and maintained by the MIT Media Lab.</p> <p>Learn more about Scratch!  <a href="https://scratch.mit.edu/about">https://scratch.mit.edu/about</a></p>
Digital Literacy***	1	<p>In this 9 week elective course students will develop digital literacy skills so that they are prepared for middle school, high school and beyond. This course will dive into information and media literacy while learning to do online research, cite sources, word process, create multimedia presentations, spreadsheets to gather data and other digital tools. Students will also learn how to use digital tools to continue building a positive digital footprint.</p>
Health 7**	1	<p>Seventh Grade Health will build on the foundation students received in sixth grade. Health 7 will review the importance of good mental/emotional health, self-esteem, stress management, mental/emotional disorders such as depression, anxiety disorders and suicide prevention. Health 7 will delve deeper into the nutritional value of foods, portion sizing and label reading. Students will learn about the six nutrients, in what foods they can be found and how the body utilizes them. The Life Cycle will be taught by discussing the male and female reproductive systems and human development from conception to birth. Alcohol and Drug prevention will be covered with an emphasis on alcohol and its harmful effects. There will be some homework, hands-on activities, videos and assessments.</p>
Physical Education 7*	1	<p>This 9 week course is designed for 7th grade students to provide them with a foundation of knowledge, skills, and values necessary for the development of a physically active lifestyle. The course content has a wide variety of opportunities for students to engage in: Introduction to Fitness, Fitnessgram Fitness Testing, Partner Sports, Team Sports and Leisure Sports. The course is structured for students to be challenged, improve their physical fitness levels and most importantly have fun!</p>

\*All students must take PE for **at least one quarter** during grades 6-8

\*\*All students must take health in 6th and 7th grade

\*\*\*All students must take Digital Literacy in 7th grade

\*\*\*\*Students planning to take a world language for high school credit in 8th grade are strongly recommended to take the 1 quarter introduction course for the corresponding language during 7th grade.



## 2024-2025 8th Grade Elective Course Descriptions

8th grade Elective	Number of Quarters	Description
Band 8: Woodwinds	4	<p>8th Grade Band is a continuation of 7th grade band plus preparing for high school band. We continue to develop our skills and abilities as we play out of the Essential Elements books and band music. We will work out of the Essential Elements 2000 book 2 and book 3 and students will receive a variety of band literature from pieces of music for contest to pop music. Students will continue to work on their technical abilities on their instrument and develop their sound. 8th Grade Band students are allowed to join Jazz Band (practices during RISE/after school). 8th Grade students are allowed to attend a solo and ensemble competition and the entire band attends a large group contest in May, where they receive a rating based on their performance. Finally, we start learning some music the band students play in high school, which includes the fight song and pep song, Land of 1000 Dances, to perform at the Bands in the Round Concert with the RHS. Students are separated into two periods based on the instrument they play. <b>Instruments include: flute, clarinet, bass clarinet, alto saxophone, tenor saxophone, bari saxophone, oboe, and bassoon.</b> There will be three concerts a year.</p>
Band 8: Brass & Percussion	4	<p>8th Grade Band is a continuation of 7th grade band plus preparing for high school band. We continue to develop our skills and abilities as we play out of the Essential Elements books and band music. We will work out of the Essential Elements 2000 book 2 and book 3 and students will receive a variety of band literature from pieces of music for contest to pop music. Students will continue to work on their technical abilities on their instrument and develop their sound. 8th Grade Band students are allowed to join Jazz Band (practices during RISE/after school). 8th Grade students are allowed to attend a solo and ensemble competition and the entire band attends a large group contest in May, where they receive a rating based on their performance. Finally, we start learning some music the band students play in high school, which includes the fight song and pep song, Land of 1000 Dances, to perform at the Bands in the Round Concert with the RHS. Students are separated into two periods based on the instrument they play. <b>Instruments include: trumpet, french horn, trombone, baritone/euphonium, tuba.</b> There will be three concerts a year. Percussion is by audition only with Ms. Pflueger (email: <a href="mailto:kpflueger@revereschools.org">kpflueger@revereschools.org</a>)</p>
Orchestra 8	4	<p>This class continues to develop the musical skills achieved in previous Orchestra classes. Students finish the Essential Elements Book 3 for their instrument and shift the focus of their playing to tone quality and musicality. Upon finishing this class, students should be ready to enter the High School orchestra as confident musicians, skilled in tone, rhythm, shifting, and intonation. Students continue developing their ability to play as a group through concerts.</p>

## 2024-2025 8th Grade Elective Course Descriptions

Choir 8	4	<p>The Revere Middle School 8th Grade Choir is an ensemble designed for beginner and/or developing voices who possess a strong desire to sing in a choral ensemble. Students will work to create and/or expand upon a foundation of basic choral technique, anatomical knowledge, rehearsal etiquette, and music theory/literacy skills. Music from a diverse palette of time periods, cultures, languages, and styles will be studied in preparation for performances and contests. There are no required prerequisites or auditions for this ensemble.</p>
French I (High School Credit)	4	<p>This is the beginning course in the fundamentals of the French language, customs, culture, the geography of France, and western European countries. Basic grammar (articles, genders, conjugations, adjective agreement, negatives, and interrogatives) is introduced. Students will be asked to interpret authentic listening and reading passages, conduct spontaneous and practiced conversations, write stories, monologues and dialogues, present information orally, tell/translate stories as well as learn about francophone holidays and customs. Students who elect to study French should plan to do daily homework and memorization of vocabulary, grammar concepts and cultural information as well as have a strong grounding in English grammar. <b><u>To receive high school credit for this course, a student must earn a C (or above) average.</u></b></p>
Latin I (High School Credit)	4	<p>This is the beginning course in the fundamentals of the Latin language as well as the culture and history of the Romans. The course will begin with an in-depth investigation of various figures of mythology. The students will be taught simple conversational sayings in the classical pronunciation of Latin. Basic grammar such as case and use of nouns and tense and voice or verbs will be the focus. Short passages of original Latin works by Roman poets, philosophers, and historians will be used for the translation passages. The passages are chosen for their simplified style of writing and historical content. Since Latin vocabulary influences over 60% of English words, the student's knowledge and understanding of English vocabulary, grammar, and syntax will be strengthened. Because the Romans have had such a tremendous impact on Western culture, literature, law, art, and language, the study of Latin will prepare students for the college entrance exams. <b><u>To receive high school credit for this course, a student must earn a C (or above) average.</u></b></p>
Spanish I (High School Credit)	4	<p>This is the beginning course in the fundamentals of the Spanish language, customs, and culture. Students will learn about the countries that comprise the Spanish-speaking world: their locations and their capitals, as well as an overview of their histories and cultures. A wide spans of vocabulary and grammatical concepts will be covered with the goal of achieving the highest possible level of personal proficiency in communication and conversation utilizing all language skill sets: listening, reading, speaking, writing. Students will be asked to interpret authentic listening and reading passages, conduct spontaneous and practiced conversations, write stories, monologues and dialogues, present information orally, translate stories as well as learn about Spanish/Hispanic holidays and customs. Students who elect to study Spanish should plan: to do daily homework, to memorize vocabulary, and to learn grammar concepts - based on and extending from their knowledge of English grammar. <b><u>To receive high school credit for this course, a student must earn a C (or above) average.</u></b></p>

## 2024-2025 8th Grade Elective Course Descriptions

Art 8	1	<p>The Art 8 course is designed to allow students to advance their knowledge of art techniques while focusing on developing strong artistic skills. The course curriculum will focus on the principles of design, which will help students become more knowledgeable, independent, and skilled artists as they explore their own artistic interests. Students will learn a variety of advanced drawing and painting techniques along with art methods such as graphic design, printmaking, and 2D design. <b><i>This course is especially beneficial for any student planning to take art courses in high school.</i></b></p>
Pottery and Sculpture 8	1	<p>In this course, students will further build their knowledge and experiences creating a variety of 3-Dimensional artworks. In this course, students will begin to learn advanced techniques and processes of pottery and sculpture. Students will engage in hands-on projects with clay and other 3D materials, experimenting with various methods including additive, subtractive, relief, and assemblage building techniques. <b><i>This course can be especially beneficial for any student planning to take sculpture or ceramics courses in high school.</i></b></p>
Integrative STEM Courses 8	1	<p>Integrative STEM education is about intentionally combining math and science concepts with technology and engineering skills to solve problems. Students who engage in integrative STEM projects in order to solve authentic problems develop communication and collaboration skills, as well as sustained interest in STEM disciplines and increased competency levels.</p> <p>Each course in our STEM solution allows students the opportunity to explore real-world problems, reflect on the problem-solving process, develop design solutions, and solve problems in science, technology, engineering, and math fields.</p> <p>The STEM courses are designed with an emphasis on project-based learning with real-world scenarios. Each STEM course is presented with a Project Challenge, whose overarching path is proposed to students at the start of the course. Students then use the Engineering Design Process to complete various Support Projects as they progress on the Challenge path.</p> <p>Most students will complete 2 courses during the 9 weeks from the choices below. (Courses completed in 7th grade can not be repeated in 8th grade.)</p> <p><b>Advanced Manufacturing courses:</b>          Introduction to Aerodynamics          Introduction to CNC Lathe          Introduction to CNC Mill          Introduction to Computer-Aided Design with 3D Printing          Introduction to Engineering and Stress Analysis          Introduction to Exploring Electricity          Introduction to Fiber Optics and Lasers          Introduction to Introduction Plastics</p> <p><b>Mechatronics courses</b>          Introduction to Automation and Robotics</p> <p><b>Environmental discovery courses</b>          Introduction to Environmental Technology Water          Introduction to Alternative Energy</p>

## 2024-2025 8th Grade Elective Course Descriptions

Aerial Robotics Course 8 (Drones)	1	<p>This is an introduction course to drone technology.</p> <p>Students will work in teams to learn how to build, operate, engineer an aerial robot and experience a hands-on STEM project challenge. Students will be placed in teams of 5-6. Teamwork is an essential part of this course.</p>
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## 2024-2025 8th Grade Elective Course Descriptions

Coding 8	1	<p>(Course may be taken up to 2 times/year.) There is <b>NO</b> prerequisite for taking coding in 7th grade. The coding curriculum is designed to be personalized. Students at any level will be challenged to further their coding skills.</p> <p><i>Students that complete Learn to Code 1-3 will be given an option to try one of several additional coding courses that include:</i></p> <ol style="list-style-type: none"><li>1. <i>Cyber Security</i></li><li>2. <i>Creating Games in Roblox</i></li><li>3. <i>Web Design</i></li><li>4. <i>Introduction to the Internet</i></li></ol> <p>This course consists of three different levels. Students will pick up where they left off in 6th grade, or begin with Learn to Code 1 if the course was not taken in 6th.</p> <p>This course consists of four different levels:</p> <p><b>In Learn to Code 1</b>, students will begin to employ Swift, a powerful and intuitive programming language created by Apple that makes programming easier and more flexible. For first-time coders, there's Swift Playgrounds, an iPad app that makes getting started fun and interactive. By exploring and solving rich puzzle worlds, students develop coding skills that become the foundation of their programming knowledge.</p> <p><b>In Learn to Code 2</b>, students will build on their fundamental knowledge of Swift. They'll journey beyond simply solving puzzles and create worlds of their own. They'll learn about variables and types, the coding constructs that allow them to store and access information. These new skills, along with initialization and parameters, will give them even more ways to use code to interact with their characters and the puzzle world, allowing them to change the rules of the world itself.</p> <p><b>In Learn to Code 3</b>, students will expand their coding skills to start thinking more like an app developer. Encountering the interstellar space of Blu's universe, they'll build a set of creative tools as they explore powerful coding concepts that professional developers use. As they learn about graphics and coordinates, they'll be able to place and manipulate images, then combine these techniques with touch events to paint artistic shapes in space. After a brief encounter with strings, they'll be launching words and even emoji into space. Add speech synthesis and sound effects, and before long, they'll be filling the silence of Blu's universes with voices and sounds. Finally, they'll explore event handlers using real events, such as finger movements or taps, to trigger their code. With event handlers, they'll choreograph dancing aliens, turn the universe into a giant musical instrument, or build their own digital lock. By the time they finish, they'll be combining their skills expertly, writing their most advanced code yet!</p> <p><b>Beyond Learn to Code</b>, Curriculum extensions in other coding languages are currently being explored and will be added as options for students that master the Learn to Code curriculum. These extensions will include experiences in augmented reality, artificial intelligence and machine learning, computer science, web design, and more.</p>
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## 2024-2025 8th Grade Elective Course Descriptions

Creating Games in Scratch 8	1	<p>There is <b>NO</b> prerequisite for taking Creating Games in Scratch 8. Students that take Creating Games in Scratch in 7th will be creating more advanced games in 8th. Students that have not previously taken Creating Games in Scratch will begin with more basic level games, but will be encouraged to try more advanced games if they move through the basic levels during the course.</p> <p>Scratch is a programming language and an online community where students can program and share interactive media such as stories, games, and animation with people from all over the world. As students create with Scratch, they learn to think creatively, work collaboratively, and reason systematically. Scratch is designed and maintained by the MIT Media Lab.</p> <p>Learn more about Scratch!  <a href="https://scratch.mit.edu/about">https://scratch.mit.edu/about</a></p>
Digital Skills for the Young Entrepreneur	1	<p>In this 9 week elective course students will create an idea for a business, use their digital literacy skills to develop and promote their idea, learn about graphic design and web design to create a positive digital footprint. Finally, students will pitch their business idea.</p>
Health 8	1	<p>Eighth Grade Health will build on the foundation the students received in the 6th and 7th grades. The curriculum will address the physical, mental, and emotional aspects of health. The curriculum is designed to motivate and assist students to maintain a healthy lifestyle and improve their health making decisions. The curriculum includes the following content areas: Dating Relationships, Communicable Diseases, Drug and Substance Prevention, Physical Activity and Nutrition. There will be classwork to enhance learning, hands-on experiments, individual projects, group projects, presentations, guest speakers and assessments.</p>
Physical Education 8*	1	<p>This 9 week course is designed for 8th grade students to provide them with a foundation of knowledge, skills, and values necessary for the development of a physically active lifestyle. The course content has a wide variety of opportunities for students to engage in: Introduction to Fitness, Fitnessgram Fitness Testing, Partner Sports, Team Sports and Leisure Sports. The course is structured for students to be challenged, improve their physical fitness levels and most importantly have fun! Considering this could possibly be students' last exposure to Physical Education, the hope is to encourage them to be lifelong movers by introducing numerous ways to exercise and/or spark an interest in a sport they will participate in at RHS.</p>

\*Students must take physical education **at least one quarter** in grades 6-8

# 2024-2025 8th Grade Elective Course Descriptions

## 3-year Planning Guide

Students are not locked into the choices they enter on this planning guide. This is just provided as a tool to help plan each student's three year progression of electives at RMS in grade 6, 7, and 8.

### Please note:

- \* Health is required in 6th and 7th grades
- \* Digital Citizenship is required in 6th grade
- \* Digital Literacy is required in 7th grade
- \* PE must be selected at least once in grades 6-8
- \* Students wishing to take a high school credit foreign language are strongly recommended to take the 9 week course for that language in 7th grade
- \*Band, orchestra, choir, and 8th grade foreign language are all year (4 quarters). All other courses meet for one quarter each.

## 6th grade Elective Planning Guide

Please fill up these planning boxes with the 8 quarters of 6th grade electives. Courses will not be scheduled in the order you place them in these boxes, as this is just a planning guide.

<b>Health 6</b>	<b>Digital Citizenship</b>		

## 7th grade Elective Planning Guide

Please fill up these planning boxes with the 8 quarters of 7th grade electives. Courses will not be scheduled in the order you place them in these boxes, as this is just a planning guide.

<b>Health 7</b>	<b>Digital Literacy</b>		

## 8th grade Elective Planning Guide

Please fill up these planning boxes with the 8 quarters of 8th grade electives. Courses will not be scheduled in the order you place them in these boxes, as this is just a planning guide.


## 2-year Planning Guide

Students are not locked into the choices they enter on this planning guide. This is just provided as a tool to help plan each student's progression of electives at RMS in grades 7 and 8.

### Please note:

\*Health is required in 7th grade

\* Digital Literacy is required in 7th grade

\* Students wishing to take a high school credit foreign language are strongly recommended to take the 9 week course for that language in 7th grade

\*Band, orchestra, choir, and 8th grade foreign language are all year (4 quarters). All other courses are one quarter each.

## 7th grade Elective Planning Guide

Please fill up these planning boxes with the 7 quarters of 7th grade electives. Courses will not be scheduled in the order you place them in these boxes, as this is just a planning guide.

<b>Health 7</b>	<b>Digital Literacy</b>		

## 8th grade Elective Planning Guide

Please fill up these planning boxes with the 8 quarters of 8th grade electives. Courses will not be scheduled in the order you place them in these boxes, as this is just a planning guide.


## 1-year Planning Guide

Students are not locked into the choices they enter on this planning guide. This is just provided as a tool to help plan each student's progression of electives at RMS in grade 8.

**Please note:** Band, orchestra, choir, and 8th grade foreign language are all year (4 quarters). All other courses are one quarter each.

## 8th grade Elective Planning Guide

Please fill up these planning boxes with the 8 quarters of 8th grade electives. Courses will not be scheduled in the order you place them in these boxes, as this is just a planning guide.
