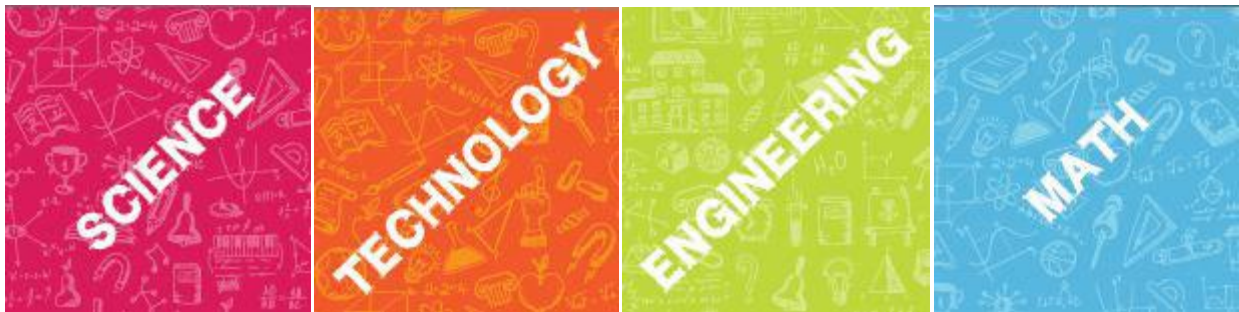


Valley Middle School of STEM



2022-23 Registration Information & Course Description Guide



900 Garden View Drive
Apple Valley, Minnesota 55124
952-431-8300
<http://vmss.district196.org/>

Rigor, Relevance, Relationships: Educating a Global Community of Innovative Thinkers.

INTRODUCTION

Dear Parent /Guardian,

This registration guide has been established to assist you in the process of understanding and selecting classes for students attending Valley Middle School of STEM (VMSS). STEM is an acronym for Science, Technology, Engineering and Math and has a strong emphasis on hands-on, experimental and inquiry-based learning that emphasize problem solving skills, cooperation and creativity. STEM education at VMSS offers the arts (art, family and consumer science, and technology education) as push-in classes embedded into the curriculum. There is also an extensive after school athletic program and club activities that complete a well-rounded comprehensive program.

The early adolescent (age 10 -14) experiences a period of great change physically, cognitively and socially. In this age group, change is sporadic and uneven, and it occurs at different times in each student's life. Middle School students need a unique program especially designed to fit the individual differences and needs of each student. The middle school years are arguably the time period where a student will encounter the most change in growth and development and also the time when they will establish the framework for their later career choices. Valley Middle seeks to provide an environment where the emerging adolescent can grow and thrive as they lay the foundation for their secondary school experience.

Please take time to review this information with your student. You will find information regarding the schedule and course descriptions. We look forward to partnering with you in creating a valuable, enriching middle school experience for your child.

-Valley Middle School of STEM Faculty and Administration

OVERVIEW OF REGISTRATION PROCESS

Registration for next fall's classes for both incoming and continuing middle school students begins in the month of February with the distribution of registration information and materials. Current fifth graders may be provided with the opportunity to tour our middle school and attend an informational session in the spring. It is essential that registration is completed in an accurate and timely manner to ensure requests for elective classes are honored at the highest degree possible.

All incoming 6th, 7th, and 8th grade students should complete the registration process indicating their elective choice requests for the upcoming school year. The registration information will be used to determine final course offerings, staffing, and the development of a master schedule. Should you have any additional questions, please call Stefanie Thomas or the counseling office at Valley Middle School (952-431-8300).

REQUIRED COURSES

All students are required to take a full year of the following courses:

- Mathematics
- Language Arts (English – Communications)
- Social Studies (Minnesota Studies 6 – U.S. Studies 7 – Global Studies 8)
- Science
- Other Required Coursework: all students are required to take Physical Education/health and Advisory.

SELECTIVE COURSES

Selective courses are designed to assist students with improving their basic skills in reading or math. Students are automatically placed into a selective course when they demonstrate a need for additional help and support in those areas after an analysis of the academic record and standardized test scores. Selective Courses may replace required and elective classes on the student schedule based on the student's individual needs

- Students with Special Education programming may be placed into Resource courses as determined by their Individual Education Plan (IEP).
- Students with English as a second language (EL) programming may be placed into courses to support their curricular needs.

ELECTIVE COURSES

In addition to the above coursework and as a student's schedule allows, elective courses will be made available to students. Elective courses are full-year commitments and are designed to introduce students to a broad range of educational programming.

- 6th Grade – Band, Choir, or Music (student selects **one** elective)
- 7th & 8th Grade (students select **two** electives) – Advanced Fab Lab (8th Grade Only); Fab Lab Design; Band; Choir; Coding; Leadership, Critical Issues, & Service; Music Technology; Spanish; STEM Applied Arts; STEM Innovations and Robotics (8th Grade only); and STEM Fitness & Wellness.

COURSE DESCRIPTIONS

(Alphabetically listed)

Advanced Fab Lab Design

Grade 8

Elective

This course is an every-other-day, year-long elective class that focuses on technology as a tool to enhance the STEM educational experience. It is available to students who have already successfully completed the Multi Media Technology elective class. Throughout the coursework students will complete advanced projects using the design programs and tools available in the fabrication lab. Students with a strong technology interest and above average skills are encouraged to enroll. *Prerequisite: Multi Media Technology

Advisory *Grades 6/7/8* *Required*
Advisory is a class that meets daily. Students participate in Silent Sustained Reading (SSR) and academic progress review. This time is also utilized for intervention and enrichment as determined by student need.

Allied Arts *Grades 6/7/8* *Required*
At VMSS Allied Arts classes provide students with an inquiry-based curriculum comprised of Art, FACS (Family and Consumer Science) and Technology that encourages hands on experiences and addresses the inter-disciplinary content of STEM programming. Art, FACS, and Technology are provided for all students as aligned within the core content areas of science, social studies, and language arts. In Allied Arts classes, students investigate many experiences and concepts through an inter-disciplinary curriculum that incorporates critical thinking, decision-making and problem-solving skills into a variety of hands-on projects and activities. By incorporating the arts into core curriculum, students participate in authentic learning experiences that assist them in developing an understanding of how the arts are fundamentally a part of all content areas.

Band *Grades 6/7/8* *Elective*
Current Band Students & Students New to Band
Band in District 196 is a sequential course that starts in 5th grade and continues through 12th grade. Like other sequential content areas such as a world language or math, it is best for students to begin band in 5th grade to learn the fundamentals at the same time. That being said, our VMSS band instructors will accept and welcome students into the band program in a way that best meets the needs of the student. If your child did not play in the 5th grade band, but would like to join band in 6th grade band, please select this as your elective choice. The band curriculum provides large grade level group band rehearsals and small group lessons for participating students. The lesson is the basic foundation of the band program. All students registered for band will have a small group lesson scheduled approximately every eight school days and a large band rehearsal every other day. Performances are an integral component of the curriculum. There are two required performances during the school year. Students may also participate in optional activity ensembles (Jazz Ensemble, Percussion Ensemble, Woodwind Ensemble, Brass Ensemble).

Choir *Grades 6/7/8* *Elective*
Perform a variety of fun songs ranging from traditional to rock. Learn to sight read music, sing in harmony, and use your voice correctly. Emphasis will be on posture, vocal technique, score reading, and performance preparation. If possible, students may be placed in a boys-only or girls-only choir to enhance the opportunities for developing gender-specific musicality. See below:
Bass (Boys) Choir is an upbeat course where students work together as a team to develop their singing skills while working through developmental voice change. Boys will work on vocal technique, rehearsal skills and be given a well-rounded background in music fundamentals. Each student will develop independent singing and reading skills to attain a high level of musicianship and confidence. Includes opportunities for field trips and performances throughout the year.
Treble (Girls) Choir is an upbeat course where students work together as a team to develop their singing skills. Choir members will work on vocal technique, rehearsal skills, and be given a well-rounded background in music fundamentals. Girls will develop independent singing and reading skills to attain a high level of musicianship and confidence. Includes opportunities for field trips and performances throughout the year.

Coding *Grades 7/8* *Elective*
This course will provide students with a foundation in digital coding. Students will learn about computer programming and learn how to code through the use of object-based coding programs. (Block Coding) Throughout the coursework students will also explore various STEM careers related to coding. *8th grade students may not take this course if they took it in 7th grade.

Communications 7 *Grade 7* *Required*
In Communications 7, students develop the “soft skills” foundation needed for success in school and in today’s changing world. Leveraging various technology tools, students collaborate in teams to assign roles and develop norms, conduct primary and secondary research, self-evaluate, problem solve, design visual aids, and eventually present or publish information and/or ideas for various audiences. The year culminates in a trimester-long project in which students identify a need and develop a nonprofit organization to help meet that need.

Communications 8 *Grade 8* *Required*
Communications 8 is a real-world course that builds on the foundational “soft skills” of Communication 7. Students fine-tune their teamwork, leadership and project-management skills, while continuing to develop their powers of public speaking and persuasion. Units of study include business & corporate dynamics, advertising, debate, business letter writing, resume development, and much more. Communications 8 includes two boardroom-style presentations in front of various industry professionals.

Creative Movement *Grades 7/8*
This performing arts (dance) elective class meets every-other-day all year. Students will learn jazz and hip-hop techniques, improvisation skills, and how to choreograph dances. It will also increase coordination, flexibility, and core strength while teaching rhythm, tempo, and beat. Students will work collaboratively to put on informal performances in class and build confidence and team work skills.

English Language Arts 6 *Grade 6* *Required*
Students in this sixth-grade class will study sentence and paragraph development, parts of speech, figurative language, grammar and usage. Students also explore the genres of fiction, author study, writer’s purpose, novel study, poetry and analyzing text inquiry units of study.

English Language Arts 7 *Grade 7* *Required*
Students in this seventh-grade class will practice creative and formal writing techniques, including grammar, punctuation, and the writing process. Daily, students will read independently: they will also take part in collaborative discussions of novels, short stories, plays, and non-fiction texts. Students will further their knowledge of the elements of fiction, inferences, summarizing, and figurative language.

English Language Arts 8 *Grade 8* *Required*
Students in this eighth-grade class will use the processes of speaking, writing, reading, and listening to study vocabulary, spelling, analogies, capitalization, punctuation, parts of speech, and basic sentence structure. Throughout the course, students will study a variety of literary texts, including short story, novel, theater, scripts, plays and poetry. English 8 students use the process

of writing for essays in the following genres: informational, personal, persuasive, and compare and contrast; students also compose original poetry and a letter of application.

Fab Lab Design *Grades 7/8* *Elective*
Media Technology is an every-other-day, year-long elective class that focuses on design programs and fabrication tools. Students will study a diverse range of technologies as they apply to educational use through the fabrication lab (VMSS FAB Lab). Course content includes graphic design through the use of Adobe Applications, 3D design and printing, and fabrication using the Fab Lab machines. ***8th grade students may not take this course if they took Multi Media in 7th grade.**

General Music 6 *Grade 6* *Elective*
General Music is a course offered for 6th graders at Valley Middle School of STEM. General music is a class which focuses on music theory, music history, and music appreciation. Students will learn songs from around the world. Students will have the opportunity to learn instruments such as; piano, guitar, and drums, as well as using music software to create their own music. All assessments will be based on the National Music Standards. There are no formal performances in General music, however, students will have minor in class performances and presentations

Leadership, Critical Issues, & Service *Grades 7/8* *Elective*
In this course students will learn about various leadership styles, explore examples of great leaders, and develop their own leadership potential. Students will also examine critical issues and world problems that are in need of positive leadership. Lastly, students will have opportunities to connect service to their learning through participation in service projects.

Mathematics: Math 6 *Grade 6* *Required*
This course focuses on general mathematical skills and pre-algebra concepts. This course will help prepare students for pre-algebra or algebra in 7th grade. *Students who would benefit from an accelerated curriculum in mathematics at the middle level will be contacted in the spring prior to starting their 6th grade year to explore the options offered at VMSS and determine the best fit.

Mathematics: Pre-Algebra *Grade 7* *Required*
Students will learn to analyze and represent linear functions; solve linear equations and systems of linear equations; analyze two and three-dimensional spaces and figures by using distance and angles; analyze and summarize data sets; analyze the use of exponents, rational numbers, ratios, proportions, and square roots.

Mathematics: Algebra 1 *Grade 8* *Required*
This course focuses on Linear Algebra. The students will work with and learn about linear equations, linear functions, linear inequalities, and systems of linear equations and linear inequalities. This will prepare students for 9th grade Intermediate Algebra, where the focus shifts to Quadratic Algebra.

Music Media Technology *Grades 7/8* *Elective*
Music Technology is an every-other-day, year-long elective class designed to help students understand the importance and influence of music in their lives, as well as show them how to appreciate a wide variety of music. In this course, students will use digital technology to write lyrics, create videos, and edit content. Students will examine music from several perspectives and engage in class discussions, research, reflective and creative writing, and produce a variety of

projects utilizing technology such as PowerPoint, iMovie, and GarageBand to understand how technology has advanced the field of music. There is no formal performance required.

Physical Education/Health *Grades 6/7/8* *Required*

PE courses provide physical opportunities which have been proven to positively impact the academic success of students, while offering an enjoyable way to improve skills and overall fitness. PE classes are designed to enhance students' interest and participation in a variety of lifetime fitness activities and sports. These courses introduce students to concepts related to individual health and fitness. Students will also participate in and learn rules, skills, and etiquette for a variety of games, sports, and activities. Each grade level course also includes Health requirements.

Science 6 *Grade 6* *Required*

As a community of 6th grade scientists, students will engage in science and engineering practices where they ask questions, collect data, analyze and interpret data, develop models, construct explanations, design solutions, construct an argument, and communicate information. They will use those practices to discover natural phenomena and to evaluate human impacts related to Earth's geology, the solar system, weather and climate.

Science 7 *Grade 7* *Required*

Seventh grade science is an interactive course with labs, activities, and projects used to teach the main concepts. The course will cover life science in detail and incorporate some chemistry. A major emphasis is the scientific method, using experimentation to teach the main concepts of the course.

Science 8 *Grade 8* *Required*

Eighth grade science is an interactive science course with topics chosen predominately from Earth and Physical Science. Earth Science topics will include plate tectonics, geology, weather, and space. Physical science topics will include density, chemical changes and acids/bases. Both in-person and virtual labs are used to model the varied concepts with a focus on technical writing.

Social Studies: American & Minnesota Studies 6 *Grade 6* *Required*

Grade six features history as the lead discipline, but the focus includes, geographic, economic, and civic understandings. Students study American and Minnesota history and its government, placing the state and its people within the context of the national story. The curriculum extends from the early indigenous people of the upper Mississippi River region to the present day.

Social Studies: U.S. Studies 7 *Grade 7* *Required*

Seventh grade American Studies is a class that will examine the people and the events that made history in the United States of America from 1800 to the present. Through the use of inquiry-based learning accompanied by artifacts, readings, web sites and visual aids, the students will understand democratic ideals; diversity and unity; immigration and migration; the growth of business and economics; science and technology, and the influence that the U.S. has had on the world.

Social Studies: Global Studies 8 *Grade 8* *Required*

Global Studies is a class designed to introduce geography, culture, economics, and history to 8th graders at Valley Middle School. Throughout the year, students will study different regions and cultures in order to understand how and why people interact with their environments and the people around them.

Spanish A *Grade 7* *Elective*

¡Español es muy divertido! Sign up to learn one of the world's top spoken languages, and be ready to be challenged with listening, speaking, reading and writing Spanish activities. Students who elect this class **must have at least an average ability in English, and strong study skills.** In addition to grammar and vocabulary, students will learn about Spanish culture, which will help them acquire cultural sensitivity toward the Spanish-speaking world as part of increased global understanding. Students will study a variety of topics including greetings, activities, likes/dislikes, describing people, school subjects, furniture, food, and more. Evaluation is based on completion of daily homework, formative quizzes, unit projects, and summative tests.

(7th AND 8th Grade Spanish are equivalent to high school level 1 class)

Spanish B *Grade 8* *Elective*

¡Viva el Español! This course is open to students who have successfully completed Spanish A. An intensive review of 7th grade Spanish paves the way for new vocabulary, grammar and cultural information. Students will study a variety of topics including numbers, family, invitations, places, how to order from a menu, planning a party and more. Evaluation is based on completion of daily homework, formative quizzes, unit projects and summative tests.

*Student must have received a minimum grade of "C" in Spanish A to qualify to take Spanish B.

*Students who demonstrate language proficiency in listening, speaking, reading and writing will be recommended to take Spanish 2 in 9th grade.

(7th AND 8th Grade Spanish are equivalent to high school level 1 class)

STEM Applied Arts *Grades 7/8* *Elective*

This course incorporates Art, Family & Consumer Science, and Technology into an every-other-day, year-long elective class. Students taking this course will explore STEM related career fields within the arts and create STEM related projects that mirror real world techniques.

STEM Innovations and Robotics *Grade 8* *Elective*

This course is an every-other-day, year-long elective class that focuses on innovative, forward-thinking technology and how it relates to STEM design. It is available to students whom have already completed the Multi Media Technology elective class or the Introduction to Coding class. Throughout the coursework students will create hands on projects in areas such as robotics, aviation, 3D design, and more.

STEM Fitness & Wellness *Grade 8* *Elective*

This is a physical education course that focuses on the individual as opposed to team sports. The class is an every-other day, yearlong elective designed to expose students to innovative practices occurring in the fitness and wellness fields of physical education. While in this class, students will get the opportunity to experience current practices that are being used to enhance whole body and developmental well-being. This will include assisting students in making nutritional and fitness plans specific to their individual needs. As a result of being in this class students will research and take part in activities that will aid them in living a health and prosperous life.