



SHADY GROVE MIDDLE SCHOOL

8100 Midcounty Highway
Gaithersburg, MD 20877
301-548-7540



SHADY GROVE
MIDDLE SCHOOL
8100 MIDCOUNTRY HIGHWAY

TIMBERWOLVES - PRIDE OF THE PACK!

Shady Grove Middle School Course Offerings



School Year 2012-2013

Main Office: (301) 548-7540 Guidance: (301) 548-7534
Fax Number: (301) 548-7535
www.montgomeryschoolsmd.org/schools/shadygrovem



“Give your best every day and your best will come back to you.”

February 2012

Dear Shady Grove Students and Parents:

Welcome to our new students and parents and welcome to all returning families to registration season at Shady Grove middle School! It's time to begin planning for the 2012-2013 school year. Each year our planning begins early to ensure that our students will have as much information as possible to make sound decisions based on their own personal needs and strengths.

Below you will find a schedule that reflects the dates for meetings as well as other pertinent information related to the articulation process. We hope that you will make every effort to attend the parent's orientation. The orientation is designed to provide extensive information about middle school requirements, registration for classes and our programs.

- ❖ **February 7, 2012** – Rising Sixth Grade Parent Orientation 7:00 p.m. – 8:00 p.m.
 - (Snow Date) – February 9, 2012
- ❖ **February 7, 2012** – Rising Seventh & Eighth Grade Parent Orientation 6:00 p.m. – 7:00 p.m.
 - (Snow Date) – February 9, 2012
- ❖ **February 8, 2012** – **All Student Registration Forms Due**
- ❖ **May 17, 2012** – Fifth Grade Visitation to SGMS
- ❖ **July 10, 11 and August 7, 8 2012** – Sixth Grade Student Orientation
 - (Follow-up information regarding orientation will be sent at a later date)

Please be assured that you may freely call our Counseling Services Department Office if you have any pressing questions. We understand that there may be information you are not familiar with. Please call our office and we will do our best to answer your questions. Please dial 301-548-7534 and ask for one of our grade level counselors.

Shady Grove is excited to have the opportunity of working with you in our nurturing middle school environment. I also feel fortunate as principal to represent such an outstanding school, community, and students. I look forward to meeting and working with you.

Sincerely,

Edward Owusu
Principal



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GENERAL INFORMATION

MIDDLE SCHOOL EDUCATION

Middle school education prepares students academically for high school and for full participation in their communities. All students have the opportunity to reach their academic potential, learn higher-order thinking skills, and develop their abilities to find and analyze information, pose problems and seek solutions, persevere, collaborate, and take responsibility for their own learning.

Locally, the Montgomery County Public Schools (MCPS) middle school principals and other leaders believe that the middle years are pivotal in defining every child's academic, social, and emotional development and in determining their future success. Our adolescent learners are faced with ever-increasing challenges in their lives and in the world around them; therefore, we must provide an educational program that both meets their unique needs and prepares them to be competitive in high school, during their postsecondary education years, in the world of work, and in our global society.

The middle school experience is integral to the early adolescent's success. All MCPS middle schools offer rigorous and challenging academic programs, elective courses, sports and extracurricular activities, and special programs to address the academic, social, and emotional characteristics of early adolescents. Students in middle school continue to focus on hitting key benchmarks as outlined in the MCPS Seven Keys to College Readiness. The middle school program emphasizes the importance of providing all students with access and opportunity to engage in rigorous and challenging instruction while providing a specific focus on addressing the achievement gap of African American and Hispanic students, English-language learners, students with disabilities, and students impacted by poverty.

Shady Grove Middle School (SGMS) is committed to providing students with a comprehensive program designed to meet the individual needs of all learners. In doing so, we will implement or provide a strong focus on each of the following:

TEAM STRUCTURE

Shady Grove is organized using a grade-level team structure. Students are teamed among core subject area teachers. Team teachers meet regularly to plan for instruction, discuss student achievement and build consistency in the program. The team approach allows teachers to work with students to build a strong sense of community and to foster long-term student-teacher relationships.

CONNECT TIME

Connect Time is similar to homeroom or advisory. Connect Time meets daily for 17 minutes. Connect Time is used for students to receive school-wide instruction in math, learn and improve their study skills, work collectively on custom made character education lessons, make up assessments, and seek extra help with a subject.

COUNSELING SERVICES

While at Shady Grove, students will be assigned a school counselor who will assist them in three major areas: academic achievement, career and educational planning, and personal and social development. The counselor may help individual students or small groups in a variety of settings. Counselors are assigned to students by grade level and remain with those students throughout their experience at Shady Grove so that a positive and lasting relationship of support is maintained. 2012-2013 Counseling Services assignments are below:

Donniel Gamble Poole- Eighth Grade Counselor, Resource Counselor
Alison Brecher- Seventh Grade Counselor
Kim Kochuba- Sixth Grade Counselor
Evette Vasquez- Registrar

HIGH SCHOOL CREDIT FOR MIDDLE SCHOOL COURSES

Credit and grades for middle school students taking a high school course are awarded based on the following:

- Students must pass the course each semester.
- Students must pass the final examination at the end of the second semester.

Students who meet these criteria, by earning an A, B, C, or D, will receive high school credit and will have these grades count towards their MCPS high school grade point average (GPA). If your child is not satisfied with the grade earned, he or she may retake the course in Grade 7 or Grade 8 if it is available, or they may retake the course in high school.

All courses approved for earning high school credit in middle school follow the procedures outlined above, except for Advanced English in Grade 8. Since students may not be able to retake Advanced English, high school credit for this course will only be awarded based on the following:

- Students must pass the examination at the end of the second semester and must earn a final grade of A or B in each semester to be awarded high school credit.
- Students who do not earn an A or B in the course will not receive high school credit and their grades will not count toward their high school grade point averages—the course will not be reported on the high school transcript.

A high school course will be recorded automatically on the high school transcript in the spring of his / her freshman year. Students receive their first copy of their high school transcript in March of their Grade 9 year and receive updates throughout high school. College admissions offices receive copies of student transcripts when students apply to colleges in their senior year. The transcript shows credits students have earned in high school courses, their cumulative MCPS GPA, and a weighted MCPS GPA. MCPS GPAs are calculated on a four-point scale, awarding four points for an A, three points for a B, two points for a C, 1 point for a D, and 0 points for an E, using the final semester grade for each course. A quality, or extra point, is awarded for honors, Advanced Placement, and advanced-level high school classes for some final grades. Grades of A and B in honors high school courses earn a quality point toward a student's weighted MCPS GPA. **It is important to note that many competitive universities do not use the MCPS calculated GPAs.** Instead, they use their own calculations based on the profile of students they are seeking.

High school credit courses offered at Shady Grove include: Algebra 1, Honors Geometry, Spanish 1, Spanish 2, French 1, French 2, Chinese 1, Advanced English, and Introduction to Engineering Design.

MARYLAND SCHOOL ASSESSMENTS (MSA)

In response to federal legislation *No Child Left Behind* Maryland State Department of Education (MSDE) has scheduled an end-of-year summative assessment program to track the progress of all children, grades three through eight and ten in reading (administered annually), math (administered annually) and science (administered once in elementary school, once in middle school and once in high school). These tests are administered each year in March or April to ensure that test results will be reported by the end of the current school year.

HIGH SCHOOL ASSESSMENTS (HSA)

In addition to the MSA (administered in grades three through eight), MSDE incorporates Maryland High School Assessments, which are end of course assessments designed to indicate student mastery of specific content. Currently, students will take one high school assessment at the conclusion of each of the following courses: Algebra/Data Analysis, English 10, and Biology. **Students must take AND pass each of the three tests to receive their high school diploma.** Shady Grove students enrolled in Algebra 1 will take the Algebra 1 HSA at the end of the course.

STUDENT SERVICE LEARNING (SSL)

Student Service Learning helps students learn and develop through active participation in thoughtful, organized service that meets a recognized community need. **Students are required to complete 75 SSL hours to earn a Maryland high school diploma.** Students can earn 10 hours per year while in middle school for a total of 30 hours by successfully completing the service-learning components of designated courses. These courses include Investigations in Science 6, English 7 and Advanced US History. Teachers will provide information about the service learning projects available in their courses. The remaining required 45 SSL hours may be earned throughout their middle and high school career by involvement in approved, unpaid activities within the school and community. A list of approved organizations is available on the following website: www.mcpsssl.org. Students who accrue more than 260 hours receive an MCPS Certificate of Meritorious Service.

In order to receive credit, students must keep in mind the following requirements:

1. For an activity not on the approved list, the Special Activity Application Form must be completed and approved **prior** to community service being performed.
2. The Verification Form must be filled out completely, with particular attention given to the Student Reflection statement. The deadlines for turning in this form are as follows:
 - Last Friday before September 30th- service performed during the summer
 - Friday before the first day of exams- service performed during semester one
 - Friday before the first day of exams- service performed during semester two

For questions regarding SSL hours, please contact Alison Brecher, SSL Coordinator, 301-548-7534.

OUTDOOR AND ENVIRONMENTAL EDUCATION (OUTDOOR ED.)

Every Grade 6 MCPS student has the opportunity to participate in outdoor and environmental learning through authentic, engaging, and interdisciplinary experiences at the Residential Outdoor and Environmental Education Program. The course of study does the following:

- Provides students with field experiences where scientific processes are used to investigate the environment, and where components of the MCPS Grade 6 curriculum are taught in a real-world setting. Students actively participate in Chesapeake Bay watershed lessons, including stream quality analysis and an in-depth study of predator-prey relationships. Using the natural world as both a laboratory and classroom, literacy and mathematical skills are integrated into the outdoor education experiences.
- Engages students in learning experiences during which they apply classroom knowledge and practice problem-solving strategies.
- Fosters inquiry, collaboration, and thinking in an atmosphere that utilizes various learning modalities and allows for informal and formative assessment.
- Builds positive interpersonal relationships as students learn and practice positive human relations skills with their peers and teachers.
- Encourages students to be active stewards of the environment in their daily life.

At the Grade 6 Outdoor and Environmental Education Program, students stay in dormitory-style housing at one of three sites. There is a fee charged for this program, set by the Board of Education, but funds exist for any student who may have difficulty meeting the financial requirements of the program. All students are strongly encouraged to attend the residential outdoor and environmental education experience.

SPECIAL EDUCATION

Shady Grove has various special education services: Speech & Language, Resource, Learning and Academic Disabilities (LAD), and Emotional Disabilities (ED). Students that receive these services have varied Individualized Education Plans (IEPs) that provide specialized instruction to address their academic needs. General and special education teachers collaborate to ensure students have

meaningful opportunities to access the general education curriculum. Instruction is designed to incorporate strategies that will enable students to make progress on their IEP goals and manage the rigor of content across all subject areas. A continuum of services is offered, including consultation, full inclusion, self-contained classes, and a combination of inclusion and self-contained.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

The ESOL program provides support for non-native English speakers as they improve their American English speaking, listening, reading, writing and viewing skills. The program is broken into three sequential levels with the goal of becoming proficient in the English language.

GIFTED AND TALENTED (GT)/ HONORS/ ADVANCED COURSES

GT, honors and advanced courses provide opportunities for academically talented and motivated students to accelerate and enhance their learning experiences through exposure to advanced content, differentiated instruction, and on-going assessment. These courses follow the approved grade level curriculum using instructional and assessment strategies that cover course objectives with more depth and require greater use of abstract and higher level thinking skills. Shady Grove offers GT, honors or advanced courses in the following content areas at all three grade levels: math, English, science, social studies and sixth grade reading. Advanced social studies and science courses are offered to all students at each grade level.

REGISTRATION INFORMATION

REGISTRATION INFORMATION

Registration cards will be distributed by counselors to students. The due date for return of the registration card to the student's school counselor is noted on the card. Teachers have completed student recommendations for math, English, reading and academic support (seventh and eighth grade only). Use this course bulletin as a guide to courses, programs and services available at Shady Grove. Read this book with your child to identify an elective option that best suits the interests and abilities of your child.

COURSE AVAILABILITY

All courses are subject to cancellation if there is not sufficient student demand, staffing or budget approval. Every effort will be made to provide students with a comparable course choice. Courses with insufficient enrollment may not be offered. As you select an elective option with your child, please choose a class that best suits their interests and abilities.

CHANGES TO COURSE REQUESTS

If you are not in agreement with your child's math, English, reading or academic support recommendations, please contact the current teacher or school counselor to discuss your concerns. After the 2012- 2013 school year begins, schedule changes will be made on an as needed basis. Schedule changes are limited due to class enrollment, staffing and course availability. It is imperative that when selecting courses, that they be chosen based on your child's interests and abilities. Elective options should be selected carefully. Students are expected to remain in electives for the duration of the school year.

IMPORTANT REGISTRATION DATES

RISING SIXTH GRADE

- February 3rd- Registration materials distributed to students
- February 7th- Rising Sixth Grade Parent Informational Meeting, 7:00 pm
- February 8th- Registration materials due to fifth grade teacher

RISING SEVENTH AND EIGHTH GRADE

- February 1st & 2nd- Registration materials distributed to students
- February 7th- Rising Seventh & Eighth Grade Parent Informational Meeting, 7:00 pm
- February 8th- Registration materials due to grade level guidance counselor



“Give your best every day and your best will come back to you.”

Dear Parent or Guardian:

If you are considering enrolling your son or daughter in high school courses while in middle school, please be aware of the following information that may affect your child’s high school transcript.

Credit and grades for middle school students taking a high school course are awarded based on the following:

- Students must pass the course each semester.
- Students must pass the final examination at the end of the second semester.

Students who meet these criteria, by earning an A, B, C, or D in some cases, will receive high school credit and will have these grades count towards their Montgomery County Public Schools (MCPS) high school grade point average (GPA). If your child is not satisfied with the grade earned, he or she may retake the course in Grade 7 or Grade 8 if it is available, or they may retake the course in high school. (Please contact the Counseling Services Department for clarification.)

All courses approved for earning high school credit in middle school follow the procedures outlined above, except for Advanced English in Grade 8. Since students may not be able to retake Advanced English, high school credit for this course will only be awarded based on the following:

- Students must pass the examination at the end of the second semester and must earn a final grade of A or B in each semester to be awarded high school credit.
- Students who do not earn an A or B in the course will not receive high school credit and their grades will not count toward their high school grade point averages—the course will not be reported on the high school transcript.

A high school course will be recorded automatically on the high school transcript, once a student has entered high school. Students receive their first copy of their high school transcript in March of their Grade 9 year and receive updates throughout high school. College admissions offices receive copies of student transcripts when students apply to colleges in their senior year. The transcript shows credits students have earned in high school courses, their cumulative MCPS GPA, and a weighted MCPS GPA. MCPS GPAs are calculated on a four-point scale, awarding four points for an A, three points for a B, two points for a C, 1 point for a D, and 0 points for an E, using the final semester grade for each course. A quality, or extra point, is awarded for honors, Advanced Placement, and advanced-level classes for some final grades. Grades of A and B in honors high school courses earn a quality point toward a student’s weighted MCPS GPA. **It is important to note that many competitive universities do not use the MCPS calculated GPAs.** Instead, they use their own calculations based on the profile of students they are seeking.

Your student’s counselor has details about earning high school credit in middle school. If you have questions, please contact the school’s counseling office. Thank you for being an active partner with us in your child’s education.

Sincerely,

Edward Owusu
Principal

MATH

The middle school mathematics curriculum is not organized by grade level, but rather by courses, much like high school. Refer to Shady Grove Middle School's Mathematics Pathway on page 31. The courses in Grade 6 are described below.

Math 6

Math 6 is intended for all students who have attempted and/or completed the kindergarten to grade five mathematics curricula. Units of study include: *Graphing Data/Analyzing Statistics, Fractions, Decimals, & Percent, Geometry, Algebra Patterns and Functions, and Probability*. All concepts and skills are presented in the context of real-life problem solving that requires reasoning, communication, and logic. Students investigate mathematical concepts through a variety of experiences. The course begins with the focus on organizing and analyzing data as students explore misuse of data and measures of central tendency. Computation includes all operations with decimals and fractions, order of operations, and ratios and rates. Math 6 extends students' understanding of algebra to include identifying and extending arithmetic and geometric sequences, writing and evaluating formulas and equations, and graphing in all four quadrants of a coordinate plane. Students find angle sums, use formulas to find area, and construct 2D figures. The curriculum is designed to prepare as many students as possible for Algebra 1 by grade eight. Curriculum indicators are organized into comprehensive topical units accompanied by formative and unit assessments that benchmark student progress as well as readiness for the next level mathematics course. Students successful in this course will go on to Mathematics 7, Mathematics 7 Enriched, or Investigations into Mathematics (IM) the following year.

Math 6 Enriched

Math 6 Enriched is an elective course intended for students who have completed the kindergarten to grade five mathematics curricula and have a general comprehension of most of the Math 6 indicators. Students receive two periods of instruction. During this time, students practice concepts learned in Math 6 and are exposed to indicators from Math 7 (see Math 6 and Math 7 descriptions). This course is designed for students who can handle a rigorous math course. Students enrolled in this course will not have an elective option. Acceptance into this course is based on teacher recommendation. **The availability of this course is based on student enrollment and the availability of staffing.** Students successful in this course will go on to IM the following year.

Math 7

Math 7 is intended for students who have completed the kindergarten to grade five mathematics curricula and Math 6 indicators. Units of study include: *Data Analysis, Algebraic Relationships, Geometric Relationships, Proportional Reasoning, Functional Relationships, and Measurement*. All concepts and skills are presented in the context of real-life problem solving that requires reasoning, communication, and making connections. Students investigate concepts to extend their mathematical proficiency. The course begins with data analysis and representation using box and whisker plots and scatter plots. Students build on their understanding of numbers and computation as they learn how to do operations with integers. They begin to connect proportional reasoning to ratios, apply geometric and measurement skills with increased precision, focus on functional relationships, arithmetic and geometric sequences. The curriculum is designed to prepare as many students as possible for Algebra 1 by grade eight. The indicators are organized into instructional units accompanied by formative and unit assessments that benchmark student progress as well as readiness for IM or Algebra 1 the following year.

Investigations into Mathematics (IM)

IM is an enriched course for mathematically accelerated students who have successfully completed the kindergarten to grade five mathematics curricula as well as the indicators for Math 6 and Math 7. One of the goals of this class is to provide a theoretical view of the world to students while preparing them for Algebra 1. Students learn both concrete and abstract mathematical topics while improving their communication, thinking and reasoning skills. It addresses all of the content of Algebra Prep at a deeper and more enriched level. Students extend their understanding of numbers to include rational and irrational numbers in the real number system. Other areas of focus include multiple representations of linear functions, data analysis and representation, probability experiments and simulations, and geometric properties and relationships between two and three dimensional figures. IM previews concepts that are assessed on the Algebra/Data Analysis High School Assessment. The units of study include: *Statistical Applications and Set Theory, Real Number Systems, Investigation of Geometry, Patterns, Relations, and Functions, The Language of Algebra, Other Operational Systems, and Probability*. Students successful in this course will go on to take Algebra 1 the following year.

ENGLISH**English 6**

Students in English 6 examine language and literature in the context of four thematic units: *Foundations, Adventures, Challenges and Barriers, and Choices*. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. Anchor texts include multicultural, contemporary, and classic titles such as Maniac Magee, The View from Saturday, Where the Red Fern Grows, True Confessions of Charlotte Doyle, and Holes. The common tasks focus primarily on the writing process highlighting the informative, persuasive, narrative, and procedural intents, and include the use of information, word processing, and presentation technology to address a variety of language skills.

Advanced English 6

This course is designed for able and motivated students with a lively interest in the power of versatility of language. In preparation for advanced middle and high school English courses, students read challenging texts written in various time periods and rhetorical contexts. Students develop their ability to express ideas with clarity and precision by writing increasingly complex compositions for a variety of purposes, including literary analysis, persuasion and research.

READING**Reading 6**

The curriculum focuses on building, refining, and extending reading strategies learned in elementary school. Students learn to personalize effective reading strategies for understanding while they read increasingly more complex and challenging middle school texts. Comprehension is a key focus, including reading beyond the literal level. Students apply strategies to expository materials such as science and social studies textbooks, newspaper articles, and biographical essays. Students extend these strategies to the studies of mythology. Vocabulary strategies are developed to incorporate etymologies, word parts, synonyms, and antonyms. Reading 6 prepares students for the demands of middle and high school courses and assessments.

Advanced Reading 6

The Advanced Reading 6 pathway includes expository comprehension strategies to help students organize, synthesize, and extend their understanding of increasingly difficult content-related texts. More emphasis is placed on drawing conclusions, making inferences, and supporting evaluations to

prepare students for high school and college. The Advanced Reading 6 texts are more challenging and may include The Children's Homer as well as many of the Junior Great Book's series. Vocabulary is examined and expanded through in-depth analysis of concept relationships, word structure, etymology, context clues, synonyms, and antonyms, as well as application. Many of the William and Mary Program techniques are applied in vocabulary development. Acceptance into this course is based on above grade reading level, grades, assessments, work products, and elementary teacher recommendations.

READ 180

READ 180 is a double-period intensive reading program which uses a small group approach through technology, high-interest literature, and direct instruction in reading, writing and vocabulary skills to meet the needs of students who experience difficulty comprehending grade-level reading material. Acceptance into this course is based on teacher recommendation. Students enrolled in this course will not have an elective option. **The availability of this course is based on student enrollment and the availability of staffing.**

FLEX

FLEX is the single-period version of READ 180. It is designed for students who have completed the READ 180 course, but still need to structure and support the course provides. Like READ 180, acceptance into this course is based on teacher recommendation.

Intensive Reading Needs

Intensive Reading Needs is an intervention class for students with IEPs who need additional support with decoding, comprehension, or a combination of both. Acceptance into this course is based on student need and teacher recommendation. Students will be matched to an appropriate reading intervention which will be discussed during an IEP meeting. Students enrolled in this course may not have an elective option.

SCIENCE

The middle school science program allows students to investigate both the concepts and process skills of science. At each grade level, topics in earth science, biology, chemistry, and physics are interconnected to show students the relationships that exist between the sciences and in the natural world. Inquiry and laboratory investigations are an integral part of the program. Problem solving and online investigations are used continually to allow students to investigate authentic problems and reinforce science concepts. The middle school science program was developed through a National Science Foundation grant and reflects the Maryland and National Science Content Standards. High expectations and differentiated instruction allow all students a challenging and engaging access to science.

Investigations in Science 6 (IS6)

IS6 is a problem/project-based curriculum. Instruction is interwoven around a relevant problem/project to allow a focus for student learning. Students engage in minds-on inquiry and hands-on explorations, productive discourse, and purposeful reading and writing. Units studied (listed below) in IS6 center around topics related to ecosystems, diversity and adaptation of organisms, forces and motion, energy, and light and sound. Students engage in science, technology, engineering, and mathematics (STEM) in order to propose solutions to identified problems. Students also participate in outdoor education where they are able to earn student service learning credit.

SOCIAL STUDIES

The social studies program in middle school builds chronological and thematic understanding of world and United States history, while developing the social studies strands of geography, economics, political systems, and culture. Each social studies unit is organized around a historical era and a social studies strand. A mix of modern content and the lessons of history provide the background knowledge and thinking skills that prepare students for high school instruction and responsible citizenship.

Grades six and seven focus on ancient and modern world history and cultures from Asia, Africa, Europe, and Pre Colonial Latin America. In grade eight students learn about the founding and early development of our nation, from the Revolution through Reconstruction. At all grade levels, students build understanding of the modern world by applying concepts of geography, economics, political systems, and culture to present-day scenarios.

Advanced World Studies 6

This course provides enriched opportunities for learning about ancient world history. The sixth grade curriculum focuses on the structures and concepts of the systems of geography, economics, politics, and culture. A historical strand runs through each and serves as a model of how each of these systems has evolved. Building on the current four units of Grade 6 world studies, Advanced World Studies 6 allows students to deepen their understandings of the rich cultures and history from the earliest human settlements to great civilizations of the year 1000 CE. Students are challenged to analyze archaeological evidence, ask questions to further their knowledge, and understand history as ongoing investigation. The ancient civilizations students will study in the sixth grade include: Mesopotamia, Egypt, Greece, Rome, and China.

PHYSICAL EDUCATION

Physical Education 6

The daily physical education program offers a comprehensive and well-balanced series of instructional activities. At each grade level, there are six focus areas: Exercise Physiology, Biomechanics, Personal and Social Responsibility, Fitness, Physical Activity and Motor Learning. The six focus areas are taught throughout the year in the following units: net games, invasion games, striking activities, conditioning and physical fitness, and dance. Team sports and individual sports game tactics and fundamental skills are taught throughout the units. Students are assigned a locker with a lock for their clothes. Each student is expected to change into approved P.E. attire, i.e., shorts, T-shirt, sweats/warm-ups, and proper shoes.

Comprehensive Health Education

Comprehensive Health Education promotes positive health-related attitudes and behaviors that support self-reliance and self-regulation while developing health literacy and lifelong wellness. Health-literate students have the knowledge, skills, and ability to maintain and enhance personal health and fitness; create and maintain safe environments; and access and utilize personal and community resources. Life skills emphasized throughout the program include setting goals; making decisions; identifying beliefs, attitudes, and motivations; assessing information; and advocating for personal, family, and community health. This nine-week course includes the following seven units: mental health; tobacco, alcohol, and other drugs; nutrition and fitness; safety and injury prevention; personal and consumer health, family life and human sexuality; and disease prevention and control. Parents of Grade 6 students will receive information about the family life and human sexuality unit and the disease prevention and control unit of instruction prior to the start of classroom instruction. Parents must sign a permission form checking "Yes" for their child to participate in these units

of instruction. Parents who do not wish their child to participate will check “No” on the parent permission form and the child will be excused from that unit. If excused, the child will complete alternative lessons of health education that do not include information about human sexuality or disease prevention, including HIV/AIDS.

ARTS PROGRAM

The Arts Program in sixth grade provides students the opportunity to explore their creative abilities and develop an appreciation for the arts. Full year elective course offerings may include *Choral Music*, and *Instrumental Music*. Semester rotation courses may include, *General Music* and *Information and Communication Technology*, and *Art*. **The availability of these courses is based on student enrollment and the availability of staffing.**

UNIFIED ARTS ROTATION—SEMESTER COURSES

Unified Arts Rotation courses are semester long classes. SGMS offers sixth grade students the option to choose from three semester-long courses. Therefore, students must select two of the three classes listed below to comprise a full-year elective. **The availability of all full year elective courses is based on student enrollment and the availability of staffing.**

Art 6

Students will investigate how artwork helps to communicate with one another, how it tells a story about our daily lives, and how it reveals our identity and our ideals. The course is designed to help students make connections between themselves, art, and real life issues. It also helps to develop the student’s creativity and technique in various forms of art. Lessons will correlate with other academic curricula, as well as allowing the students to study various artists, art movements, and cultures from around the world. Students will create their own works of art utilizing the art elements and principals of design. **The availability of this course is based on student enrollment and the availability of staffing.**

General Music

Students enrolled in this class will become involved with a variety of activities designed to introduce them to music. Students will study music history, musical notation, and will utilize the Yamaha Music in Education (MIE) piano keyboard lab to study piano. They will experience a wide range of musical concepts and are encouraged to become successful listeners, readers, and composers of music. **The availability of this course is based on student enrollment and the availability of staffing.**

Information and Communication Technology (ICT 6)

In this course, students use technology in a rigorous, inquiry- and project-based learning environment that promotes relevance and engagement. Students acquire knowledge and skill sets connected to Grade 6 content areas involving the use of application software (such as Word, PowerPoint, & EXCEL), web-based, and multimedia tools (such as PhotoStory & Scratch software). The students will learn concepts of programming through the development of games and educational simulations as well as robotics programming with sensors. Students will work in both teams and individually throughout the units of study. The completion of this course prepares students to follow middle school pathways that lead to high school credit courses in Grade 8; however, this course is not a requirement to take the technology & engineering courses offered in 7th grade. Course outcomes are based on the *Maryland Technology Literacy Standards for Grades PreK-8* and the Maryland State Department of Education Voluntary State Curriculum for technology education.

FULL YEAR ELECTIVE COURSES

*The following courses are full year electives that students take in lieu of an arts rotation. **The availability of all full year elective courses is based on student enrollment and the availability of staffing.***

CHORUS

Chorus 6

Membership in the Sixth Grade Chorus is open to all students. Since this may be the first choral experience for some participants, emphasis is placed on developing singing fundamentals, including diction, breathing and breath support, tone production and pitch discrimination, phrasing, interpretation and expression. Individual voices are monitored, especially those of young men whose voices are changing. Students learn a wide variety of choral music appropriate for their developing levels. Chorus members are required to participate in evening performances and in the Montgomery County Chorus Festival.

FOREIGN LANGUAGE

French 1 ^{A/B*}

The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, foods, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

**Sixth grade students who wish to take a world language must meet strict criteria.*

Spanish 1 ^{A/B *}

The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, foods, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

**Sixth grade students who wish to take a world language must meet strict criteria.*

INSTRUMENTAL MUSIC

Band 6

This program is designed for students of wind and percussion instruments who have had at least one year of instruction and participation in an elementary band program in the fifth grade. All participants are required to perform in evening performances. Students will need to supply their own instruments.

Beginning Band 6

This course is designed for students without prior experience on wind and percussion instruments who wish to prepare for enrollment in a high school band. Students will receive guidance in selecting an appropriate instrument and are taught how to assemble and care for the instrument. Students are expected to acquire the basic techniques and establish practice habits that will prepare them for participation in ensembles. In addition, students are required to participate in evening performances. A commitment to two consecutive years of participation in band at Shady Grove Middle School is necessary if a student is to meet the performance standards for acceptance into the Ninth Grade Concert Band at Magruder High School. Students will need to supply their own instrument. Students who select beginning band as an elective course will not be placed in the arts rotation.

Strings 6

This program is designed for students who have had at least one year of instruction and participation in an elementary strings program in the fifth grade. All string participants are required to perform in evening performances.

MATH

The middle school mathematics curriculum is organized by grade level, but rather by courses, much like high school. Refer to Shady Grove Middle School's Mathematics Pathway on page 31. The courses in Grade 7 are described below.

Math7

Math 7 is intended for students who have completed the kindergarten to grade five mathematics curricula and Math 6 indicators. Units of study include: *Data Analysis, Algebraic Relationships, Geometric Relationships, Proportional Reasoning, Functional Relationships, and Measurement*. All concepts and skills are presented in the context of real-life problem solving that requires reasoning, communication, and making connections. Students investigate concepts to extend their mathematical proficiency. The course begins with data analysis and representation using box and whisker plots and scatter plots. Students build on their understanding of numbers and computation as they learn how to do operations with integers. They begin to connect proportional reasoning to ratios, apply geometric and measurement skills with increased precision, focus on functional relationships, arithmetic and geometric sequences. The curriculum is designed to prepare as many students as possible for Algebra 1 by grade eight. The indicators are organized into instructional units accompanied by formative and unit assessments that benchmark student progress as well as readiness for the next level mathematics course. Students successful in this course will go on to Algebra Prep or Algebra 1 the following year.

Math 7 Enriched (Math 7 Plus)

Math 7 Enriched is an elective course intended for students who have completed the kindergarten to grade five mathematics curricula, Math 6 curriculum and have a general comprehension of most of the Math 7 indicators. Students receive two periods of instruction, practice with concepts learned in Math 7 and are exposed to indicators from Algebra Prep (See Math7 and Algebra Prep descriptions). This course is designed for students who can handle a rigorous math course. Students enrolled in this course will only have one elective option. Acceptance into this course is based on teacher recommendation. **The availability of this course is based on student enrollment and the availability of staffing.** Students successful in this course will go on to Algebra 1 the following year.

Investigations into Mathematics (IM)

IM is an enriched course for mathematically accelerated students who have successfully completed the kindergarten to grade five mathematics curricula as well as the indicators for Math 6 and Math 7. One of the goals of this class is to provide a theoretical view of the world to students while preparing them for Algebra 1. Students learn both concrete and abstract mathematical topics while improving their communication, thinking and reasoning skills. It addresses all of the content of Algebra Prep at a deeper and more enriched level. Students extend their understanding of numbers to include rational and irrational numbers in the real number system. Other areas of focus include multiple representations of linear functions, data analysis and representation, probability experiments and simulations, and geometric properties and relationships between two and three dimensional figures. IM previews concepts that are assessed on the Algebra/Data Analysis High School Assessment. The units of study include: *Statistical Applications and Set Theory, Real Number Systems, Investigation of Geometry, Patterns, Relations, and Functions, The Language of Algebra, Other Operational Systems, and Probability*. Students successful in this course will go on to take Algebra 1 the following year.

Algebra 1

Students in Algebra 1 have successfully completed IM or Math 7 and the indicators for Algebra Prep. This course examines the basic structure of real numbers, algebraic expressions, and functions. The topics studied are linear equations, inequalities, functions and systems, quadratic equations and functions, polynomial expressions, data analysis, probability and properties of functions. Algebra 1 is a high school course and will satisfy the high school Algebra 1 requirement. In order to earn high school credit, students must take and pass the second semester exam. Semester grades in this course factor into students' high school grade point averages. Students in this course take the Algebra 1 High School Assessment (HSA) in May. The units of study include: *Equations and Inequalities in a Single Variable*, *Introduction to Functions*, *Linear Equations and Inequalities in Two Variables*, *Systems of Equations and Inequalities* (followed by a semester exam), *Data Analysis and Probability*, *Exponents and Polynomials*, and *Quadratic and Exponential Functions* (followed by a semester exam). Students successful in this course will go on to take Honors Geometry the following year.

ENGLISH**English 7**

Students in English 7 examine language and literature in the context of the challenges people face. The themes studied are *Identity*, *A Sense of Place*, *Voices from the Past*, and *Creativity*. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. Anchor texts include multicultural, contemporary, and classic titles such as *The Adventures of Tom Sawyer*, *The Midwife's Apprentice*, *Zlata's Diary: A Child's Life in Sarajevo*, *Call of the Wild*, *The Great Gilly Hopkins*, *The Master Puppeteer*, *Anne Frank: The Diary of a Young Girl*, and *A Midsummer Night's Dream*. The common tasks focus primarily on the writing process, highlighting the informative and persuasive intents, and include the use of information, word processing, and presentation technology to address a variety of language skills.

Advanced English 7

This course is designed for highly capable and motivated students with a lively interest in the power and versatility of language. In preparation for Advanced English 8 and advanced high school English courses, students read challenging texts written in various time periods and rhetorical contexts. Students will also develop their ability to express ideas with clarity and precision by writing increasingly complex compositions.

Please note: Students will be enrolled in either the English 8 or Advanced English course based on teacher recommendation. Only students who are enrolled in the Advanced English course will take the high school credited exam. However, all students will participate in the Advanced English class where the classroom instruction will be differentiated to meet the needs of all students. This also provides all students the opportunity to experience the type of rigor.

READING**Reading 7/8**

This course extends the reading strategies framed in previous reading courses. This curriculum is designed for readers who have a foundation in decoding skills but experience difficulty comprehending grade-level material. The goal of this course is to build reading comprehension of expository texts that students will encounter in secondary-content classes, including periodicals, trade books, textbooks, and reference materials. Students also develop vocabulary fluency rate, and motivation for reading. Students learn research-based reading strategies and apply them to the

content texts of science, social studies, English and mathematics. During the year of study, students work with increasingly more difficult materials as they become more independent and efficient readers. Students enrolled in this course will only have one elective option. Acceptance into this course is based on teacher recommendation.

READ 180

READ 180 is a double-period intensive reading program which uses a small group approach through technology, high-interest literature, and direct instruction in reading, writing and vocabulary skills to meet the needs of students who experience difficulty comprehending grade-level reading material. Students enrolled in this course will only have one elective option. Acceptance into this course is based on teacher recommendation. **The availability of this course is based on student enrollment and the availability of staffing.**

FLEX

FLEX is the single-period version of READ 180. It is designed for students who have completed the READ 180 course, but still need to structure and support the course provides. Like READ 180, acceptance into this course is based on teacher recommendation.

Intensive Reading Needs

Intensive Reading Needs is an intervention class for students with IEPs who need additional support with decoding, comprehension or a combination of both. Acceptance into this course is based on student need and teacher recommendation. Students will be matched to an appropriate reading intervention which will be discussed during an IEP meeting. Students enrolled in this course may not have an elective option.

SCIENCE

The middle school science program allows students to investigate both the concepts and process skills of science. At each grade level, topics in earth science, biology, chemistry, and physics are interconnected to show students the relationships that exist between the sciences and in the natural world. Inquiry and laboratory investigations are an integral part of the program. Problem solving and online investigations are used continually to allow students to investigate authentic problems and reinforce science concepts. The middle school science program was developed through a National Science Foundation grant and reflects the Maryland and National Science Content Standards. High expectations and differentiated instruction allow all students a challenging and engaging access to science.

Investigations in Science 7 (IS7)

Like IS6, IS7 is a problem/project-based curriculum. Instruction is interwoven around a relevant problem/project to allow a focus for student learning. Students engage in minds-on inquiry and hands-on explorations, productive discourse, and purposeful reading and writing. Units studied in IS7 center around topics related to biochemistry, genetics, structure and function, and biotechnology. Dissection is one of the many instructional methods that may be used in middle school science. Students may request one of the teacher's alternatives to dissection in these classes. Alternatives may include such materials as videotapes, charts, diagrams, and textbook overlays. Students engage in science, technology, engineering, and mathematics (STEM) in order to propose solutions to identified problems.

SOCIAL STUDIES

Advanced World Studies 7

This course provides enriched opportunities for learning about modern world history. Through the study of world civilizations and global interactions from 1000 CE to 1450 CE, students learn about political, economic, and social systems today. The seventh grade social studies curriculum begins with the fall of the Roman Empire in 476 CE and runs through the time period known as the “Middle Ages” in Europe. Students will go on to examine that same time period in Africa and Latin America (Aztecs and Incas) and finally the Renaissance and the Age of Exploration of the 1500’s and 1600’s. Analysis of primary and secondary source texts and visuals is a central method for learning about the past and the challenges of historical interpretation.

PHYSICAL EDUCATION

Physical Education 7

The daily physical education program offers a comprehensive and well-balanced series of instructional activities. At each grade level there are six focus areas: Exercise Physiology, Biomechanics, Personal and Social Responsibility, Fitness, Physical Activity and Motor Learning. The six focus areas are taught throughout the year through the following units: net games, invasion games, striking activities, conditioning and physical fitness, and dance. Individual and team game tactics as well as fundamental skills are taught throughout the units. Each student is expected to change into approved P.E. attire, i.e., shorts, T-shirt, sweats/warm-ups, and proper shoes. Students are assigned a locker with a lock for their clothes.

Comprehensive Health Education

Comprehensive Health Education promotes positive health-related attitudes and behaviors that support self-reliance and self-regulation while developing health literacy and lifelong wellness. Health-literate students have the knowledge, skills, and ability to maintain and enhance personal health and fitness; create and maintain safe environments; and access and utilize personal and community resources. Life skills emphasized throughout the program include setting goals; making decisions; identifying beliefs, attitudes, and motivations; assessing information; and advocating for personal, family, and community health. Comprehensive health education includes the following seven units: mental and emotional health; tobacco, alcohol, and other drugs; nutrition and fitness; safety, and injury prevention; personal and consumer health, family life and human sexuality; and disease prevention and control.

Parents of grade seven students will receive information about the family life and human sexuality unit and the disease prevention and control unit of instruction prior to the start of classroom instruction. The disease unit includes information about sexually transmitted diseases and infections, including HIV/AIDS. Parents must sign a permission form checking “Yes” for their child to participate in these units of instruction. Parents who do not wish their child to participate will check “No” on the parent permission form and the child will be excused from that unit. If excused, the child will complete alternative lessons of health education that do not include information about human sexuality or disease prevention, including HIV/AIDS.

ARTS PROGRAM

The Arts Program in seventh grade provides students the opportunity to explore their creative abilities and develop an appreciation for the arts. Full year elective course offerings may include *Choral Music, Instrumental Music, and Applied Robotic Engineering (CADD)*. Semester rotation courses may include: *Art and Family and Consumer Sciences (FACS)*. **The availability of these courses is based on student enrollment and the availability of staffing.**

UNIFIED ARTS ROTATION—SEMESTER COURSES

Unified Arts Rotation courses are semester long classes. SGMS offers seventh grade students the option to choose two semester-long courses as a year-long elective. Seventh grade students who select the *Unified Arts Rotation* will take one semester of *Art 7* and one semester of *Family and Consumer Sciences 7*. **The availability of all full year elective courses is based on student enrollment and the availability of staffing.**

Art 7

Students will pursue a sequence of activities that will develop their skills in creating, discussing and critiquing art. They will be introduced to numerous drawing and painting techniques, receive advanced instruction in the elements of art and color theory and in the creative use of a variety of art materials that include tempera, water color and acrylic paints. They will also create 3-dimensional art from paper mache and clay. All students will be required to maintain a sketchbook and a portfolio of their art work.

Family and Consumer Sciences (FACS) – Grade 7

Today's students live in a diverse and changing world requiring many decisions associated with daily living and carrying out the complex process of personal resource management. Throughout this course student learning will focus on making decisions on selecting and caring for clothing, other textile products, and living environments; learning to be an informed consumer, exploring education and career goals and making food choices that will optimize health and well-being. In addition, a special unit of study will focus on financial literacy. Students will be introduced to the knowledge, skills, attitudes, and behaviors associated with the successful management of personal finances.

FULL-YEAR ELECTIVES

The following courses are full year electives that students take in lieu of an arts rotation. **The availability of all full year elective courses is based on student enrollment and the availability of staffing.**

ACADEMIC SUPPORT

Pathways to Success

An elective course designed to teach skills that will help students achieve academic success. Students learn strategies for organization and time management. Students are also taught more strategies for how to study and take tests. During the class period, students actively monitor their academic achievement and develop strategies to maintain or improve their grades. The class provides time for students to get support with homework, projects and other assignments. Students enrolled in this course will only have one elective option. **Acceptance into this course is based on teacher recommendation.**

CHORUS

Chamber Chorus

Membership in the Chamber Chorus is open to all grade seven and grade eight students. Since this is an advanced choral ensemble, members should have some previous singing experience, and emphasis is placed on extending vocal musicianship through phrasing, interpretation and expression. Individual voices are monitored and singing fundamentals remain a focus of the course. Students learn a wide variety of choral music appropriate for their developing levels. Chorus members are required to participate in evening performances and in the Montgomery County Chorus Festival. An audition is required for participation in Chamber Chorus.

General Chorus 7/8

Membership in General Chorus is open to all grade six, seven and eight students. Since this may be the first choral experience for some participants, emphasis is placed on developing singing fundamentals including diction, breathing and breath support, tone production and pitch discrimination, phrasing, interpretation, and expression. Individual voices are monitored, especially those of young men whose voices are changing. Students learn a wide variety of choral music appropriate for their development levels. The General Chorus is required to participate in evening performances as well as in the county chorus festival.

ENGINEERING

Computer Aided Drafting & Design with Applied Robotic Engineering (CADD-ARE)

This course is a prerequisite for enrolling in Introduction to Engineering Design (IED) A/B in Grade 8 (high school level course). In this hands-on course, students experience real world problem solving in a laboratory setting. Students will learn the engineering design process and apply that process each unit to a variety of engineering challenges and projects. Students will focus on collaboration skills, learn the art of drafting, create detailed technical drawings, learn the function of key electronic components, build electrical circuits, research vehicle safety, and explore housing trends, permitting, and the buying and selling of houses. Students will also research, design, and build models related to electrical, structural, mechanical, architectural, biomedical, & green engineering. Through a partnership with the Naval Surface Warfare Center, Carderock Division in Bethesda, the students have the opportunity to build the Sea Perch aquatic ROV (Remotely Operated Vehicle). Through his partnership, they will work with engineers from the warfare center & take a field trip to the warfare center as a culminating activity. Throughout the units of study, students will be using industry standard computer software. Mathematics, science, and technology concepts will be applied throughout the course to support the engineering processes.

FOREIGN LANGUAGE

French 1

The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, foods, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

The accelerated and rigorous nature of this class requires that students meet the following criteria for enrollment:

- Outstanding study skills and academic achievement to include an excellent command of English reading, writing, and speaking skills
- Acceptance will be based on teacher recommendation.
- **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

Spanish 1

Spanish 1 covers the curriculum of 1A and 1B in one year's time. The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, foods, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

The accelerated and rigorous nature of this class requires that students meet the following criteria for enrollment:

- Outstanding study skills and academic achievement to include an excellent command of English reading, writing, and speaking skills
- Foreign Language in Elementary School (FLES) experience is helpful but not necessary
- Acceptance will be based on teacher recommendation and MSA scores.
- **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

Spanish 1A Full Year

Spanish 1A Full Year covers the curriculum of 1A in one year's time. This course is only offered to seventh graders. During students' eighth grade year, they will take Spanish 1B Full Year. The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as school, recreational activities, food, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

The accelerated and rigorous nature of this class requires that students meet the following criteria for enrollment:

- Outstanding study skills and academic achievement to include an excellent command of English reading, writing, and speaking skills
- Foreign Language in Elementary School (FLES) experience is helpful but not necessary
- Acceptance will be based on teacher recommendation and MSA scores.
- **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

INSTRUMENTAL MUSIC

Advanced Band 7/8

This performing group is open to students who have a greater proficiency in wind and percussion instruments. This course is for students who have had at least one year of band experience at the middle school level and wish to expand their repertoire of band literature, begin harmony and ear training, learn new musical terms, and assume leadership responsibilities, such as conducting. Band students are required to participate in evening performances as well as participate in the district and state band festivals. An audition is required for participation in Advanced Band.

Beginning Band 7

This course is designed for students without prior experience on wind and percussion instruments who wish to prepare for enrollment in a high school band. Students will receive guidance in selecting an appropriate instrument and are taught how to assemble and care for the instrument. Students are expected to acquire the basic techniques and establish practice habits that will prepare them for participation in ensembles. In addition, students are required to participate in evening performances. A commitment to two consecutive years of participation in band at Shady Grove Middle School is necessary if a student is to meet the performance standards for acceptance into the Ninth Grade Concert Band at Magruder High School. Students will need to supply their own instrument.

General Band 7/8

This program is designed for students of wind and percussion instruments who have had at least one year of instruction. All participants are required to perform in evening performances.

Orchestra 7/8

This course is open to all students who have previously studied a string instrument. Students must have had one year of playing experience in an orchestra at the middle school level. Students will continue to develop the skills and the understanding needed to play the violin, viola, cello, or string bass. Techniques and content covered will include: vibrato, bow articulation, scales and arpeggios, use of first and third position, concept of good tone quality, interpretation of music in terms of style and the musical ideas of the composer, ability to analyze instrumental techniques such as attack, release, sustained tone, crescendo and diminuendo, rhythmic accuracy, richness, and clarity of tone quality, ability to follow the director, and concepts of phrasing and balance in group playing. Students are required to participate in evening performances as well as participate in the district orchestra festival and, if appropriate, participate in the state orchestra festival. An audition is required for participation in Orchestra 7/8.

MATH

The middle school mathematics curriculum is organized by grade level, but rather by courses, much like high school. Refer to Shady Grove Middle School's Mathematics Pathway on page 31. The courses in Grade 8 are described below.

Algebra Prep

Students in Algebra Prep have completed middle school Math 7 but may need additional preparation in pre-algebra skills and concepts. All concepts and skills are presented in the context of real-life problem solving that requires the use of reasoning, communication and logic. Students investigate mathematical concepts through a variety of experiences. Algebra Prep extends students' understanding of numbers to include rational and irrational numbers in the real numbers system. A goal is for students to develop computational fluency of real numbers. Areas of focus include multiple representation of linear functions, data analysis and representation, probability experiments and simulations, and geometric properties and relationships between two and three dimensional figures. This course previews concepts that are assessed on the Algebra/Data Analysis High School Assessment. The indicators are organized into comprehensive topical units accompanied by formative and summative assessments that benchmark student progress. The units of study include: *Exponents Rational Numbers and Proportions, Statistics and Probability, Expressions Equations and Inequalities, and Geometry Measurement and Irrational Numbers*. Students successful in this course will go on to take Algebra 1 the following year.

Algebra 1

Students in Algebra 1 have successfully completed Investigations into Mathematics or Mathematics 7 and the indicators for Algebra Prep. This course examines the basic structure of real numbers, algebraic expressions, and functions. The topics studied are linear equations, inequalities, functions and systems, quadratic equations and functions, polynomial expressions, data analysis, probability and properties of functions. Algebra 1 is a high school course and will satisfy the high school Algebra 1 requirement. In order to earn high school credit, students must take and pass the second semester exam. Semester grades in this course factor into students' high school grade point averages. Students in this course take the state Algebra 1 High School Assessment (HSA). The units of study include: *Equations and Inequalities in a Single Variable, Introduction to Functions, Linear Equations and Inequalities in Two Variables, Systems of Equations and Inequalities* (followed by a semester exam), *Data Analysis and Probability, Exponents and Polynomials*, and *Quadratic and Exponential Functions* (followed by a semester exam). Students successful in this course will go on to take Geometry or Honors Geometry the following year.

Honors Geometry

Students in Honors Geometry have successfully completed Algebra 1. This course provides a rigorous and in-depth look at the topics studied in Geometry. It is a mathematical system through the deductive development of relationships in the plane and space. Students formalize their understanding of geometric concepts, including congruence and similarity, circle charts, secants and tangent segments, parallel and perpendicular lines, angle and side measures in polygons, proof, logic transformations, the Pythagorean Theorem, constructions, coordinate geometry, and surface area and volume of solids. Honors Geometry includes an additional unit, *Trigonometry*. This is a high school course and will satisfy the high school Geometry requirement. In order to earn high school credit, students must take and pass the second semester exam. Semester grades in this course factor into students' high school grade point averages with grades of A or B earning an additional quality point for an Honors class. The units of study include: *Foundations of Geometry,*

Reasoning in Geometry, Polygons, Congruence [followed a semester exam] *Indirect Measurement, Three Dimensional Geometry and Measurement, Similarity, Circles, Trigonometry* [followed by a semester exam]. Students successful in this course will go on to take Honors Algebra 2 or Algebra 2 the following year.

ENGLISH

English 8

Students in English 8 examine language and literature in the context of exploring the world and new ideas, and the themes studied are *Journeys, Community, Responsibility, and Discoveries*. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. Anchor texts include multicultural, contemporary, and classic titles such as Canyons, The Hobbit, The Giver, Animal Farm, Dacey’s Song, The Pearl, Narrative of the Life Frederick Douglass, As You Like It, and Out of the Dust. The common tasks focus primarily on the writing process and include the use of information, word processing, and presentation technology to address a variety of language skills. Students are given opportunities to present their work both orally and with the use of technology. Instruction in reading and writing strategies, grammar, and vocabulary are embedded in every unit. All students develop portfolios and revisit their compositions as they work to strengthen their writing skills. English 8 prepares students through activities integrated into each thematic unit for county, state, and national assessments.

Advanced English

This course is designed for able and motivated students with a lively interest in the power and versatility of language. In preparation for advanced high school English courses, students read challenging texts written in various time periods and rhetorical contexts, making interdisciplinary connections with historical events and concepts developed in their eighth grade U.S. History class. Students develop their ability to express ideas with clarity and precision by writing increasingly complex compositions for a variety of purposes, including literary analysis, persuasion, and research. Students who successfully complete both semesters and pass the semester B final exam (semester B final exam currently under consideration/development) will earn one elective credit toward high school graduation.

Please note: Although students will be enrolled in either Advanced English or English 8, all eighth-grade students work together in the eighth-grade English classroom. Classroom instruction is differentiated to meet the needs of all learners including the students enrolled in Advanced English who will take the English exams for high school elective credit as well as students who need extra support to meet the indicators of eighth-grade English.

READING

Reading 7/8

This course extends the reading strategies framed in previous reading courses. This curriculum is designed for readers who have a foundation in decoding skills but experience difficulty comprehending grade-level material. The goal of this course is to build reading comprehension of expository texts that students will encounter in secondary-content classes, including periodicals, trade books, textbooks, and reference materials. Students also develop vocabulary fluency rate, and motivation for reading. Students learn research-based reading strategies and apply them to the content texts of science, social studies, English and mathematics. During the year of study, students work with increasingly more difficult materials as they become more independent and efficient

readers. Students enrolled in this course will only have one elective option. **Acceptance into this course is based on teacher recommendation.**

READ 180

READ 180 is a double-period intensive reading program which uses a small group approach through technology, high-interest literature, and direct instruction in reading, writing and vocabulary skills to meet the needs of students who experience difficulty comprehending grade-level reading material. Students enrolled in this course will only have one elective option. Acceptance into this course is based on teacher recommendation. **The availability of this course is based on student enrollment and the availability of staffing.**

FLEX

FLEX is the single-period version of READ 180. It is designed for students who have completed the READ 180 course, but still need to structure and support the course provides. Like READ 180, acceptance into this course is based on teacher recommendation.

Intensive Reading Needs

Intensive Reading Needs is an intervention class for students with IEPs who need additional support with decoding, comprehension or a combination of both. Acceptance into this course is based on student need and teacher recommendation. Students will be matched to an appropriate reading intervention which will be discussed during an IEP meeting. Students enrolled in this course may not have an elective option.

SCIENCE

The middle school science program allows students to investigate both the concepts and process skills of science. At each grade level, topics in earth science, biology, chemistry, and physics are interconnected to show students the relationships that exist between the sciences and in the natural world. Inquiry and laboratory investigations are an integral part of the program. Problem solving and online investigations are used continually to allow students to investigate authentic problems and reinforce science concepts. The middle school science program was developed through a National Science Foundation grant and reflects the Maryland and National Science Content Standards. High expectations and differentiated instruction allow all students a challenging and engaging access to science.

Investigations in Earth Science Systems

This course emphasizes the dynamic processes of systems on and inside Earth and its surrounding space environment. Topics include the interrelated systems—hydrosphere, cryo-sphere, geosphere, biosphere, and atmosphere. Students will collect and analyze scientific data from several resources to develop solutions to solve real-world problems.

SOCIAL STUDIES

Advanced US History 8

This course provides enriched opportunities for learning about the early history of the United States. In addition to the MCPS course of study, students deepen their understanding of key concepts and events through reading, writing, document analysis, and historical thinking. These skills will be applied in each unit and students will be expected to show progress in skill development and historical knowledge in exams and historical document-based projects. The

eighth grade social studies curriculum begins with the British Colonization of the 13 colonies. It progresses through the American Revolution, the struggles of the new republic, and concludes with U.S. Civil War and Reconstruction, ending in the year 1877.

PHYSICAL EDUCATION

Physical Education 8

The daily physical education program offers a comprehensive and well-balanced series of instructional activities. At each grade level there are six focus areas: Exercise Physiology, Biomechanics, Personal and Social Responsibility, Fitness, Physical Activity and Motor Learning. The six focus areas are taught throughout the year in the following units: net games, invasion games, striking activities, conditioning and physical fitness, and dance. Team sports and individual sports game tactics and fundamental skills are taught throughout the units. *Each student is expected to change into approved P.E. attire, i.e., shorts, T-shirt, sweats/warm-ups, and proper shoes. Students are assigned a locker with a lock for their clothes.

Comprehensive Health Education

Comprehensive Health Education promotes positive health-related attitudes and behaviors that support self-reliance and self-regulation while developing health literacy and lifelong wellness. Health-literate students have the knowledge, skills, and ability to maintain and enhance personal health and fitness; create and maintain safe environments; and access and utilize personal and community resources. Life skills emphasized throughout the program include setting goals; making decisions; identifying beliefs, attitudes, and motivations; assessing information; and advocating for personal, family, and community health. Comprehensive health education includes the following seven units: mental health; tobacco, alcohol, and other drugs; nutrition and fitness; safety and injury prevention; personal and consumer health, family life and human sexuality; and disease prevention and control. Students in Grade 8 receive nine weeks of health education. Special emphasis on stress management and prevention of depression is included in Grade 8 through Red Flags, a collaborative project with the Mental Health Association of Montgomery County.

Parents of Grade 8 students will receive information about the family life and human sexuality unit, and the disease-prevention and control unit of instruction prior to the start of classroom instruction. Information about pregnancy prevention and sexually transmitted diseases is included in Grade 8 health education. Parents must sign a permission form checking "Yes" for their child to participate in these units of instruction. Parents who do not wish their child to participate will check "No" on the parent permission form and the child will be excused from that unit. If excused, the child will complete a county provided alternative unit of health education that does not include information about human sexuality or disease prevention, including HIV/AIDS.

ARTS PROGRAM

The Arts Program in eighth grade provides students the opportunity to explore their creative abilities and develop an appreciation for the arts. Full year offerings may include *Choral Music*, *Instrumental Music* and *Lights, Camera Literacy*. Semester rotation courses may include, *Art*, *Food and Nutrition* (FACS), and/or *Web Page Design* (*Computer Applications*). **The availability of these courses is based on student enrollment and the availability of staffing.**

UNIFIED ARTS ROTATION

Unified Arts Rotation courses are semester long classes. SGMS offers eighth grade students the option to choose from three semester-long courses. Therefore, students must select two of the three classes listed below to comprise a full-year elective. **The availability of all full year elective courses is based on student enrollment and the availability of staffing.**

Art 8

The eighth grade program provides a balanced and comprehensive instructional experience for students that will enable them to expand their knowledge, skills and understanding about art introduced in the earlier grades. Students will receive advanced instruction in drawing and painting techniques, commercial and decorative art and paper mache' and ceramic sculpture. Much of this instruction will be individualized. Watercolor, tempera, acrylic paint, pastels, pen and ink and clay will be some of the materials used. Some assignments will focus upon an understanding and appreciation of the work of specific artists and will include discussions that critique painting styles and themes.

Food and Nutrition (FACS)

This is a semester class that will focus on the interrelationship between nutritious food choices and health and wellness. Students will learn about food and kitchen safety, the elements of good nutrition, budgeting the food dollar, and will have an opportunity to create an ethnic restaurant menu and then choose one item from their menu to cook for their classmates. Students will also be given weekly cooking assignments in the classroom kitchens to learn and refine their cooking skills.

Web Page Design (Computer Applications)

Students will learn the elements of and skills necessary in the art of web design. This course includes instruction on HTML and graphic design. Students will also learn how to use the software used in the construction of web sites. Students will create a personal web site, and for their final project students will design a web presentation on a selected topic.

FULL YEAR ELECTIVES

The following courses are full year electives that students take in lieu of an arts rotation. The availability of all full year elective courses is based on student enrollment and the availability of staffing.

ACADEMIC SUPPORT

Pathways to Success

An elective course designed to teach skills that will help students achieve success. Students learn strategies for organization and time management. Students are also taught more strategies for how to study and take tests. During the class period, students actively monitor their academic achievement and develop strategies to maintain or improve their grades. The class provides time for students to get support with homework, projects and other assignments. **Acceptance into this course is based on teacher recommendation.**

CHORUS

Chamber Chorus

Membership in the Chamber Chorus is open to all grade seven and grade eight students. Since this is an advanced choral ensemble, members should have some previous singing experience, and emphasis is placed on extending vocal musicianship through phrasing, interpretation and expression. Individual voices are monitored and singing fundamentals remain a focus of the course. Students learn a wide variety of choral music appropriate for their developing levels. Chorus members are required to participate in evening performances and in the Montgomery County Chorus Festival. An audition is required for participation in Chamber Chorus.

General Chorus 7/8

Membership in General Chorus is open to all grade six, seven and grade eight students. Since this may be the first choral experience for some participants, emphasis is placed on developing singing fundamentals including diction, breathing and breath support, tone production and pitch discrimination, phrasing, interpretation, and expression. Individual voices are monitored, especially those of young men whose voices are changing. Students learn a wide variety of choral music appropriate for their development levels. The General Chorus is required to participate in evening performances as well as in the county chorus festival.

ENGINEERING

Introduction to Engineering Design (IED)

This high school level course is for eighth grade students who have successfully completed CADD-ARE (Computer Aided Drafting & Design with Applied Robotic Engineering) in 7th grade at SGMS. The major focus of this course is learning how to take an idea that will eventually be manufactured or produced through the engineering design process. Students learn about various aspects of engineering and engineering design, such as how engineers communicate through drawing. They will apply what they learn through various activities, projects, and problems. The course covers the role of an engineer, the engineering design process, product design, product analysis and improvement, and designing as an engineer. Students are expected to develop thinking skills by solving real-world engineering problems and work both individually and in teams to complete challenging, self-directed engineering challenges. This course requires students to learn & use the software Inventor, which is a state of the art 3-D design software package from AutoDesk. The software allows students to create technical working drawings of their designs & solutions. Students who successfully complete both semesters and pass the semester final exam earn one technology education credit toward high school graduation.

FOREIGN LANGUAGE

French 1

French 1 covers the curriculum of 1A and 1B in one year's time. The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, foods, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

The accelerated and rigorous nature of this class requires that students meet the following criteria for enrollment:

- Outstanding study skills and academic achievement to include an excellent command of English reading, writing, and speaking skills
- Acceptance will be based on teacher recommendation.
- **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

French 2

This is a continuation of French 1. Additional vocabulary and grammar is added to the themes studied the year before. Greater standards for grammatical accuracy are imposed in both the written and spoken forms of the language. Criteria for enrollment in French 2: successful completion of French 1. **Enrollment into this course is a full year commitment. Students enrolled in this course will not be placed in the arts rotation.**

Spanish 1

Spanish 1 covers the curriculum of 1A and 1B in one year's time. The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, foods, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

The accelerated and rigorous nature of this class requires that students meet the following criteria for enrollment:

- Outstanding study skills and academic achievement to include an excellent command of English reading, writing, and speaking skills
- Foreign Language in Elementary School (FLES) experience is helpful but not necessary
- Acceptance will be based on teacher recommendation.
- **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

Spanish 1B Full Year

Spanish 1B Full Year covers the curriculum of 1B in one year's time. This course is only offered to eighth graders. The prerequisite for Spanish 1B Full Year is the completion of Spanish 1A Full Year. The program is designed to enable students to communicate in a culturally appropriate and meaningful manner in both the spoken and written form through authentic situations that students are most likely to encounter. Students develop listening, speaking, reading, and writing skills in addition to acquiring knowledge of the culture emphasized. Vocabulary acquisition is heavily emphasized and is organized around themes such as family, clothing, travel, etc. Grammar is also taught as a necessary component of effective communication, with greater emphasis on structural accuracy to enhance communication in each year of successive language study.

The accelerated and rigorous nature of this class requires that students meet the following criteria for enrollment:

- Outstanding study skills and academic achievement to include an excellent command of English reading, writing, and speaking skills
- Foreign Language in Elementary School (FLES) experience is helpful but not necessary

- Completion of Spanish 1A Full Year
- **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

Spanish 2

This is a continuation of Spanish 1. Additional vocabulary and grammar is added to the themes studied the year before. Greater standards for grammatical accuracy are imposed in both the written and spoken forms of the language. Criteria for enrollment in Spanish 2: successful completion Spanish 1. **Enrollment in this course is a full year commitment. Students will not be permitted to drop out of this course during the year.**

Chinese 1*

Students begin to learn to communicate orally and in written form about daily life. Emphasis is on vocabulary development, simple grammatical structures, and the basic culture. Students are encouraged to use the language beyond the school setting. High school credit is given upon the successful completion of the full year and passing the final exam.

**Chinese 1 will be offered only to 8th grade students and only at Magruder High School for the 2012 – 2013 school year.*

INSTRUMENTAL MUSIC

Advanced Band 7/8

This performing group is open to students who have a greater proficiency in wind and percussion instruments. This course is for students who have had at least one year of band experience at the middle school level and wish to expand their repertoire of band literature, begin harmony and ear training, learn new musical terms, and assume leadership responsibilities, such as conducting. Band students are required to participate in evening performances as well as participate in the district and state band festivals. An audition is required for participation in Advanced Band.

General Band 7/8

This program is designed for students of wind and percussion instruments who have had at least one year of instruction. All participants are required to perform in evening performances.

Orchestra 7/8

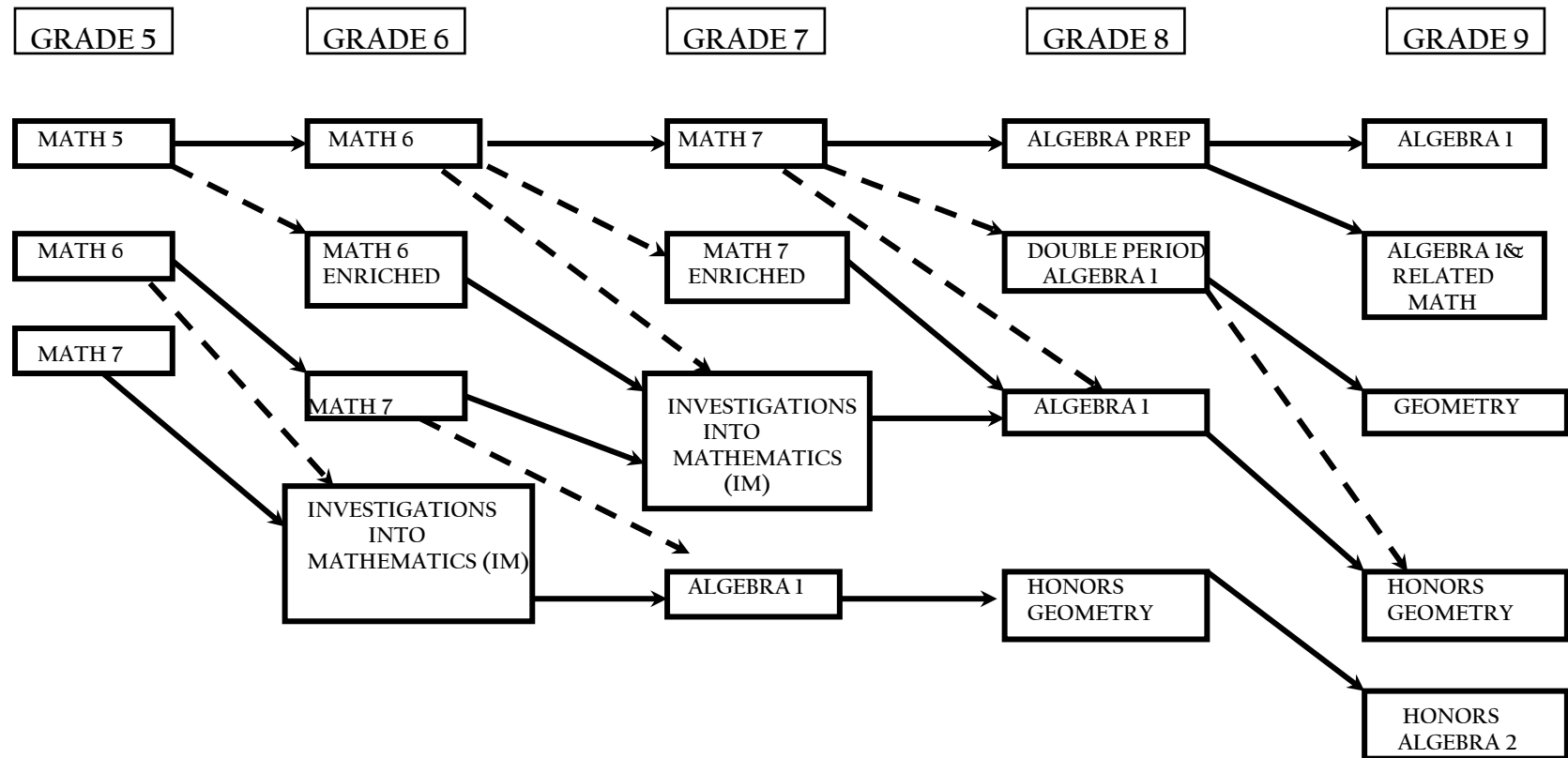
This course is open to all students who have previously studied a string instrument. Students must have had one year of playing experience in an orchestra at the middle school level. Students will continue to develop the skills and the understanding needed to play the violin, viola, cello, or string bass. Techniques and content covered will include: vibrato, bow articulation, scales and arpeggios, use of first and third position, concept of good tone quality, interpretation of music in terms of style and the musical ideas of the composer, ability to analyze instrumental techniques such as attack, release, sustained tone, crescendo and diminuendo, rhythmic accuracy, richness, and clarity of tone quality, ability to follow the director, and concepts of phrasing and balance in group playing. Students are required to participate in evening performances as well as participate in the district orchestra festival and, if appropriate, participate in the state orchestra festival. An audition is required for participation in Orchestra 7/8.

VIDEO AND FILM LITERACY

Lights, Camera, Literacy

Lights, Camera, Literacy teaches students to transfer their literacy skills as viewers of film to skills on the written page. Students will learn to “read” film at the literary, dramatic and cinematic levels and work collaboratively to create their own short films that illustrate different aspects of filmmaking. This course focuses on increasing literacy in both written and visual texts, improving collaboration skills, building confidence and motivation, and providing opportunities for higher level thinking via the strategies used in the competitive worlds of chess and spelling competitions. The course teaches students how to apply their visual literacy expertise (which they use when viewing films) to written text literacy. The parallels of these two forms of expression will be explored by focusing on the films *Spellbound*, *Akeelah and the Bee*, and *Searching for Bobby Fischer*. Students will study accompanying scripts and novels, as well as non-fiction text about spelling bees and chess competitions. Students will learn to use camcorders and editing software to demonstrate these skills as visual communicators.

SHADY GROVE MIDDLE SCHOOL'S MATHEMATICS PATHWAYS



Bold arrows represent standard or non-accelerated progression between courses.

Broken arrows represent the accelerated pathways based on proficiency.



SHADY GROVE MIDDLE SCHOOL
MIDDLE SCHOOL REFORM PATHWAY B- ENGINEERING

SIXTH GRADE

Information Communication Technology (ICT6)



SEVENTH GRADE

Computer-Aided Drafting & Design w/
Applied Robotic Engineering (CADD-ARE)



EIGHTH GRADE

Introduction to Engineering Design (IED)

Satisfies the Tech Ed credit for high school graduation



NINTH-TWELFTH GRADE
(Magruder High School)

Project Lead the Way Program

Optional enrollment



“Give your best everyday and your best will come back to you.”

~Shady Grove Middle School