2017–2018

Montgomery County Public Schools

MIDDLE SCHOOL PROGRAM

GUIDE

MONTGOMERY
COUNTY PUBLIC
SCHOOLS

Rockville, Maryland

VISION

We inspire learning by providing the greatest public education to each and every student.

MISSION

Every student will have the academic, creative problem solving, and social emotional skills to be successful in college and career.

CORE PURPOSE

Prepare all students to thrive in their future.

CORE VALUES

*Learning
Relationships
Respect
Excellence
Equity*

MCPS

MONTGOMERY COUNTY PUBLIC SCHOOLS
www.montgomeryschoolsmd.org

MARYLAND

Malcolm Baldrige
National Quality Award
2010 Award Recipient

January 2017

Dear Middle School Students:

Montgomery County Public Schools (MCPS) is committed to ensuring that every student graduates from high school prepared for college and career success. Our middle schools offer a wide range of engaging courses and programs that will prepare you for the future challenges of college and the workplace. The 2017–2018 Guide to the Middle School Program presents descriptions of courses that are designed to help you make the most of your academic experience. Please review this guide and consider it a useful tool as you, your parents/guardians, and your school counselor work together to plan a learning experience that will challenge and engage you.
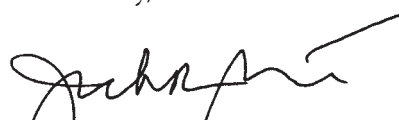
In addition, we ask that you reference our new "High School Graduation, College and Career Planner" as you are selecting your classes. The planner allows you to determine whether the courses you are taking satisfies graduation/career technology education requirements so that you graduate college and career ready. Moreover, the planner details what activities you may complete to assess career interests and explore educational and professional options. If you have questions about the High School Graduation, College and Career Planner, please see your school counselor.

Please remember that each middle school provides information about specific course options available at that school. The information presented on individual school websites found at www.montgomeryschoolsmd. org/schools/, provides an overview of each school, including detailed program descriptions of magnet and signature programs, and career-themed course pathways offered in MCPS.

MCPS is fortunate to have highly skilled and dedicated teachers, principals, and support staff at our middle schools. Preparing you for your future as a productive citizen in a global society is a responsibility we take very seriously. We invite you to commit yourself to your studies with the same zeal and enthusiasm.

I urge you to enroll in challenging and rigorous courses in pursuit of your personal goals and extend my best wishes for your success as you prepare for the exciting and rewarding challenges ahead.

Sincerely,

Jack R. Smith, Ph.D.
Superintendent of Schools

CONTENTS

This booklet provides an overview of the Montgomery County Public Schools (MCPS) middle school program. It includes a description of courses students will take in Grades 6, 7, and 8, as well as electives, after-school, and special programs that may be available to students.

"A high-quality education is the fundamental right of every child."

—MCPS Board of Education vision

Middle school education offers a safe and supportive environment that nurtures students as they develop knowledge and skills for success in high school, college, and the workplace. All students have the opportunity to improve their skills for analyzing information, posing problems, seeking solutions, persevering, and collaborating, in order to take responsibility for their own learning and to reach their academic potential. All Montgomery County Public Schools (MCPS) middle schools offer rigorous and challenging academic programs, elective courses, special programs, extracurricular activities, and sports to address the academic, social, and emotional needs and characteristics of early adolescents.

This booklet provides an overview of the MCPS middle school program. It includes a description of courses students will take in Grades 6, 7, and 8, as well as electives, after-school, and special programs that may be available to students. Not all programs and elective courses are offered at every school. Check with your child's school to see what opportunities they offer.

Parents/Guardians and Schools Working Together

We want all of our children to succeed in school and in life. Parents/Guardians can support their children's progress and success by

- Setting high expectations for your children and helping them understand that school should be a top priority;

- Encouraging your child to complete challenging work;

- Staying informed of your child's academic progress and social and emotional well-being—dedicating a time each day to talk with each child;

- Providing a quiet place for your child to study and helping with homework;

- Supporting your child's appropriate use of technology by

  - Monitoring your child's use of the Internet, social media and networking, and cellphone and texting activities;

  - Limiting the amount of time your child watches television and discussing the programs with your child;

  - Limiting the amount of time your child spends playing video games.

- Encouraging your child to participate in extracurricular and volunteer activities, as well as volunteering at your child's school;

- Establishing healthy habits at home;

- Encouraging your child to be an active participant rather than a passive recipient of school academic and extracurricular activities in and out of the classroom.

In addition, you and your child should review together the MCPS Student Code of Conduct, found at *http://www.montgomeryschoolsmd.org/students/rights/,* as well as your individual school's Code of Conduct.

School Websites

You will find valuable information about the school system and middle school in general at *www.montgomeryschools.org* and *www.montgomeryschoolsmd.org/curriculum/middleschool/*. To find information about your child's school, go to *www.montgomeryschools.org*, and click on Schools.

WELCOME TO MIDDLE SCHOOL

Registration

Please contact the counseling department at your child's middle school with any questions about registration deadlines or about specific course offerings. The middle school will distribute registration materials to students.

Grade 6 Required Courses	Grade 7 Required Courses	Grade 8 Required Courses
English or ESOL Mathematics Science Social Studies Physical Education/Health Digital Literacy 1* 1 Elective* *Schools have the option to substitute a world language.*	English or ESOL Mathematics Science Social Studies Physical Education/Health 2 Electives* *Includes the option to continue to Digital Literacy 2 or enroll in a world language.*	English or ESOL Mathematics Science Social Studies Physical Education/Health 2 Electives*
Elective courses vary from school to school. Check with your child's school to see what is offered there.		

Health Forms Documentation

Students entering MCPS for the first time must provide documentation of required immunizations, either completed or in progress and up to date, unless they have an appointment to obtain the documentation or immunizations within 20 calendar days of enrollment in MCPS.

Immunization/Vaccination Requirements

All students entering 7th and 8th grade in the 2017–2018 school year must receive vaccination against Tetanus-diptheria-acellular pertussis (Tdap) and Meningococcal meningitis (MCV4) before the first day of school. These requirements are in addition to the existing school vaccination requirements.

You should work with your child's doctor to get their vaccination record or the vaccinations that are missing. If you are unable to get an appointment with your child's doctor, call your local health department.

By the first day of school, you must provide proof of vaccination or proof of a doctor's appointment. In addition to the required vaccines please talk to your child's doctor about other vaccines, like flu, HPV, and Hepatitis A that your child may need.

If you have questions about vaccines that are required for school, please call your child's doctor or the school community health nurse.

Comprehensive School Counseling Program

The School Counseling Program is designed to maximize the academic success and personal growth of every student across the five domains of student development (academic, career, personal, interpersonal, and healthy development) established by national, state, and local guidelines. Through a comprehensive developmental school counseling program, each counselor works as a team member with school staff, parents, and the community to create a caring, supportive climate and atmosphere in which young adolescents can achieve academic success. The Middle School Counseling Programs are designed for students to attain optimal personal growth, acquire positive social skills and values, set appropriate career goals, and realize full academic potential to become productive, contributing members of the world community.

School Counseling Curriculum

Middle School Counselors Implement the Counseling Program by Providing—
- Academic skills support
- Organizational, study, and test-taking skills
- Education in understanding self and others
- Coping strategies
- Peer relationships and effective social skills
- Communication, problem-solving, decision-making and conflict resolution
- Career awareness, exploration, and planning
- Multicultural/diversity awareness

Individual Student Planning
- Goal-setting/decision-making
- Academic planning
- Career planning
- Education in understanding of self, including strengths, weaknesses, and self-management skills
- Transition planning

Responsive Services
- Individual and small-group counseling
- Individual/family/school crisis intervention
- Peer facilitation
- Consultation/collaboration
- Referrals

System Support
- Professional development
- Consultation, collaboration, and teaming
- Program management and operation

Grading and Reporting

The Montgomery County Board of Education is committed to maintaining rigorous performance and achievement standards for all students and to providing a fair process for evaluating and reporting student progress that is understandable to students and their parents/guardians and relevant for instructional purposes. Board Policy IKA, *Grading and Reporting*, sets forth the Board's expectations, which are implemented as set forth in MCPS

Regulation IKA-RA, *Grading and Reporting.* MCPS Regulation IKA-RA is implemented in all schools to ensure effective communication regarding student achievement, consistent practices within and among schools, and alignment of grading practices with standards-based curriculum, instruction, and assessments. Grades are based on multiple and varied tasks and assessments over time within a grading period.

Schools implement countywide standard procedures for reteaching/reassessment, homework, and grading. School staff members explain course-specific grading procedures in writing to students and parents/guardians at the beginning of a semester/school year or when these procedures change. Students and parents/guardians are informed about student progress throughout the grading period and are included in the decision-making process regarding the students' education. Teachers in Grades 6–8 continue to report other important information, such as learning skills, separately from the academic grade. In middle school, learning skills include participation and assignment completion. See *http://www. montgomeryschoolsmd.org/departments/policy/pdf/ikara.pdf* and *http:// www.montgomeryschoolsmd.org/info/grading/*.

Homework
Homework is important in a student's overall program. Teachers assign homework that is related to the curriculum. There are two categories of homework:
1. Homework checked for practice or preparation, which may account for a maximum of 10 percent of the marking period grade.
2. Homework evaluated for learning counts with other learning and assessment activities toward the remaining portion of the marking-period grade.

Timely and meaningful feedback on both types of homework will be provided and may take various forms. See *http://www. montgomeryschoolsmd.org/uploadedFiles/info/grading/SEC_ HomeworkProcedures.pdf*.

Reporting Student Progress
Teachers will provide students and parents/guardians with information about achievement throughout the marking period. This feedback may take several forms, including the following:

- Report cards
- Interims/progress reports
- Online grade reports (Edline)
- Parent conferences
- Informal methods of communication
- Teacher feedback

Online grading systems provide classroom-to-home communication in MCPS, providing parents/guardians with secure information about their child's progress and grades. For more information, please visit *http://www.montgomeryschoolsmd. org/departments/oars/activate.shtm*.

School Library Media Program
Information literacy is a major component of college preparedness and workforce readiness and is central to the academic achievement of all students. The school library media program supports student achievement by collaborating with classroom teachers to integrate instruction of information literacy and information technology skills into the content curriculum and to ensure that students and staff are effective users and creators of ideas and information. The program is aligned with and integrated into the improvement plan at each school. The program includes the following:
- Collaboration with classroom teachers and other staff to develop and implement lessons that teach and assess information literacy skills in the context of the curriculum by incorporating the inquiry process to solve an information need and/or a research question
- Equitable and timely access to ideas and information by students and staff members
- A school library media collection selected and evaluated consistent with MCPS Regulation IIB-RA: *Evaluation and Selection of Instructional Materials and Library Books*
- Materials in the collection that support curricular requirements and instruction, engage students in free choice and independent reading, and are diverse in content and format, in response to stakeholder feedback.

Literacy and Reading Support
Literacy
Literacy is the ability to think critically and creatively through reading, writing, speaking, listening, and viewing in all content areas. In order for all MCPS students to be ready for the current demands both in academics and in their future careers, it is essential that they collaborate in authentic literacy experiences throughout their day. Students may experience this in a variety of ways such as reading and discussing a wide variety of complex text, asking relevant questions to clarify their thinking, and constructing arguments and explanations using clear evidence and reasoning. Though skills such as these will be different depending on the content of the class, students will have consistent opportunities to develop them in authentic and content-specific ways.

Reading Support
It is our goal to have all MCPS students reading at or above grade level. During the school year, all middle schools administer reading assessments such as Measures of Academic Progress in Reading (MAP-R) to provide teachers and parents/guardians with information about each student's progress in reading. MAP-R is typically administered in Grades 6, 7, and 8. The assessment provides common data points to use as students articulate from one grade level to another, and assists in supporting instructional and program decisions for students.

Students who have been identified as needing additional support have several options in reading. Special reading programs are provided during a period of reading support. Students may also have the opportunity to enroll in an extended day or Saturday program.

Student Service Learning (SSL)

MCPS believes that service learning addresses recognized community needs and is connected to curriculum goals. Preparation, action, and reflection are the three phases of service learning that distinguish SSL from traditional volunteering and community service efforts. The state of Maryland requires a total of 75 hours of SSL service for graduation. MCPS students begin fulfilling this requirement the summer after Grade 5 and continue to accrue SSL hours throughout high school.

The service-learning requirements may be completed through full participation in the SSL activities in specific middle and high school courses, full participation in service activities promoted by school-sponsored clubs and organizations, and full participation in opportunities and organizations preapproved for SSL. Students are awarded 10 SSL hours at the end of each middle school year for their full participation in SSL activities, with completion of the following middle school courses: Science (Grade 6), English (Grade 7) and Social Studies (Grade 8).

All activities for which SSL hours are desired must occur in a public place, be secular in nature, and be supervised by a representative from an approved nonprofit, tax-exempt organization. Parents/guardians and relatives may not directly supervise. Information about approved community organizations and opportunities may be located at *www.montgomeryschoolsmd.org/departments/ssl/*. MCPS Form 560-51: *Student Service Learning Activity Verification*, is required to document all activities for which SSL hours are desired.

High School Credit in Middle School

Middle school students may take selected high school courses for credit. High school courses successfully completed while in middle school will be included in the GPA calculation at the beginning of Grade 9 to earn credit. Middle school students must meet the same requirements as high school students by earning a passing grade each semester. Additional information is in MCPS Regulation IKC-RA, *Grade Point Averages (GPA) and Weighted Grade Point Averages (WGPA)*, found at *http://www.montgomeryschoolsmd.org/departments/policy/pdf/ikcra.pdf*.

This box **HS credit** is next to any course in this bulletin for which students may earn high school credit.

Maryland High School Assessment Requirements for Graduation

The Maryland High School Assessments (MHSAs) are those tests developed for or adopted by the Maryland State Department of Education (MSDE) that are aligned with and measure a student's skills and knowledge as set forth in the content standards for specified courses. The term MHSA encompasses the following assessments, as well as any other tests MSDE may develop or adopt in the future:

- The High School Assessment (HSA)
- The Partnership for Assessment of Readiness for College and Careers (PARCC)
- It is anticipated that students will be required to take the Maryland Integrated Science Assessment (MISA) during a grade-level course yet to be determined by MSDE.

PARCC, HSA, AND MISA Assessments

The Partnership for Assessment of Readiness for College and Careers (PARCC) is a group of states that have come together to develop high-quality student assessments linked to new, more rigorous English language arts (ELA), literacy, and mathematics standards. Students in Grades 3–8 take PARCC assessments in ELA/literacy and in mathematics. Middle school students taking Algebra 1 must take the PARCC Algebra 1 assessment. Further information on PARCC assessments is available at *www.montgomeryschoolsmd.org/curriculum/parcc/*.

Maryland High School Assessment (MHSA) Requirements *HSA and PARCC Assessments* **The MHSA requirements are subject to change by Maryland State Department of Education (MSDE).**	
Algebra	Pass Algebra 1 PARCC
Maryland Integrated Science Assessment (MISA)	During a grade-level course yet to be determined, students will need to participate in the MISA, pending approval by the State Board of Education.
English 10	Pass English Language Arts/Literacy (ELA/L) 10 PARCC
Government	Pass Government HSA or substitute established by MSDE (e.g., AP)

English for Speakers of Other Languages (ESOL)

Students who need assistance in learning English receive instruction aligned with the MSDE English language proficiency (ELP) state curriculum. Students will be grouped for instruction based on their language needs.

Multidisciplinary Education, Training, and Support

The Multidisciplinary Education, Training, and Support (METS) program of MCPS is designed to meet the linguistic and academic needs of English language learners who have had limited or no previous schooling or significant schooling gaps, due to interrupted or disrupted education. Students enrolled in the METS program receive instruction in developing English language proficiency and basic literacy and academic skills. Students also receive instruction and support to facilitate adjustment to both the academic and social school environment. The METS program is offered at selected middle schools and high schools.

Special Education Instruction

If a student has an Individualized Education Program (IEP) which is still in effect as they transition into middle school, the student will continue to receive the specialized instruction that they require to address their academic needs. Students may receive instruction in a variety of service-delivery models in the middle school setting to acquire skills and knowledge. The array of services could include, but is not limited to, consultation from special education personnel about instruction, direct service within the general education classroom, pull-out service in a resource room, direct service within a self-contained special education classroom, or some combination of the above.

If you suspect that your child may have an educational disability and might require an evaluation, please contact the school counselor for information.

Section 504 Plan

A student with a disability may be considered for eligibility and accommodations under Section 504 of the *Rehabilitation Act of 1973* if the student has a physical or mental impairment that substantially limits one or more major life activities. Teachers or parents/guardians who feel a student may meet the criteria for Section 504 eligibility may request an Educational Management Team (EMT)/Collaborative Problem-Solving Team meeting. Each student who meets the eligibility guidelines for accommodations under Section 504 will have a Section 504 Plan developed for that student to use in school. If a student has a Section 504 Plan which is still in effect as they transition into middle school, the student will continue to receive the specialized instruction that they require to address their academic needs. Please visit the MCPS website for more information *http://www.montgomeryschoolsmd.org/departments/special-education/compliance/section-504.aspx* or contact the Resolution and Compliance Unit at 301-517-5864.

Alternative Programs

Each middle school has been provided with staffing to develop and implement a school-based alternative program. The over-all purpose of these programs is to provide supports and direct academic, social/emotional, and behavior management services to students as well as supports to staff. With ongoing guidance and monitoring, students in these programs should be able to experience greater success and remain in the mainstream of school activities.

International Baccalaureate/ Middle Years Programme

The MYP is designed for students aged 11 to 16. It provides a framework of learning that encourages students to become creative, critical, and reflective thinkers. The MYP emphasizes intellectual challenge, encouraging students to make connections between their studies in traditional subjects and the real world. It fosters the development of skills for communication, intercultural understanding, and global engagement—essential qualities for young people who are becoming global leaders. Students engage in research and the acquisition and application of critical thinking skills through all subject areas, as well as study a second language. MYP currently is authorized and offered as a whole-school program at Newport Mill, Silver Spring International, Julius West, Westland, Francis Scott Key, Montgomery Village, and Neelsville middle schools.

For more information, contact the Department of Accelerated and Enriched Instruction (301-279-3163) or visit the website, *http://www.montgomeryschoolsmd.org/curriculum/specialprograms/*.

Magnet and Consortia Programs

Magnet Programs

The Humanities Communication Program is offered at Roberto Clemente and Eastern middle schools. This interdisciplinary humanities program emphasizes writing, media production, and world studies and focuses on developing students' ability to use language and media effectively to present results of their academic inquiry.

The Mathematics/Science/Computer Science Program is offered at Roberto Clemente and Takoma Park middle schools. This program provides experiences for students to deepen their understanding of mathematics, science, and computer science concepts in an integrated manner and at an accelerated pace.

Entrance to these three-year interdisciplinary programs is through an application process. Information and brochures may be obtained by calling the Division of Accelerated and Enriched Instruction (301-279-3163) or by visiting the Special Programs website, *www.montgomeryschoolsmd.org/curriculum/specialprograms/*.

Middle School Magnet Consortium

The Middle School Magnet Consortium (MSMC) is made up of three schools: Argyle Magnet School for Digital Design and Development, A. Mario Loiederman Magnet School for Creative and Performing Arts, and Parkland Magnet School for Aerospace Technology. Each school offers an innovative and challenging academic curriculum for all students, and students have the opportunity to take specialty courses that are centered on the magnet instructional focus. The MSMC schools are based on a whole-school magnet model, which engages and challenges all students.

Grade 5 students living within the boundaries for Argyle, Parkland, and Loiederman must choose to attend one of the consortium magnet middle schools. Grade 5 students (and Grade 6 students) throughout Montgomery County may apply through the Choice process to attend one of these three schools. To learn more, visit the website, *www.montgomeryschoolsmd.org/schools/msmagnet*.

Extended Learning Opportunities

Middle School Extended Day and Extended Year Programs

Middle schools offer extended learning opportunities during the school year and in July. The extended day (after-school) programs provide additional support designed to meet specific needs of students. These intervention programs in reading, mathematics, and writing are designed to improve students' skills so they can successfully access the on-grade-level or above-grade-level curriculum. Middle schools offer extended-year programs during July for those students who need support or acceleration. Students who did not demonstrate mastery of the grade-level objectives during the school year may take support classes to improve their skills and performance. These courses also provide students with a preview of the objectives in reading, English, and mathematics for the first marking period of the upcoming school year. Enrichment opportunities in mathematics are available in the summer to support students who, with nurturing and additional instruction, can enroll and successfully complete advanced-level mathematics courses while in middle school.

Extracurricular Activities, Interscholastic Sports, and Academic Eligibility

All middle schools offer after-school extracurricular activities and many have the ability to provide activity bus service for those students who stay after the regular school day. The activities may include clubs and/or interscholastic sports.

All middle schools offer an interscholastic sports program for students. Each student needs to have documentation of a current physical exam on file with the school to try out and participate and must meet MCPS academic eligibility criteria to try out for athletic teams. The team sports that occur in the fall are boys' and girls' softball and coed cross-country; in the winter, boys' and girls' basketball; and in the spring, boys' and girls' soccer. MCPS middle schools compete against each other during the sports seasons.

Students must maintain a 2.0 marking period average (MPA), with not more than one failing grade in the previous marking period, in order to participate in extracurricular activities during a marking period. The MPA is not the same as the GPA. Further information can be found in MCPS Regulation IQD-RB: *Academic Eligibility for Middle School Students Who Participate in Extracurricular Activities*, *www.montgomeryschoolsmd.org/departments/policy/pdf/iqdrb.pdf*.

Extracurricular Activity Fee

There is an Extracurricular Activity Fee used to help lower the cost of extracurricular activities in the schools. Only students who participate in school-sponsored extracurricular activities where there is an adult supervising students beyond the instructional day are required to pay. Check with your school to see a list of activities requiring and not requiring payment of this fee. For more information, visit the website, *www.montgomerymd.org/departments/accounting/pay-eca.aspx*.

George B. Thomas, Sr. Learning Academy "Saturday School"

MCPS hosts Saturday morning instructional programs providing reading and math enrichment, tutoring, and mentoring for students in Grades 1–12. Saturday Schools are open to all students, regardless of their home school. High school sites include Blair, Einstein, Gaithersburg, Kennedy, Magruder, Northwest, Paint Branch, Rockville, Sherwood, Springbrook, Watkins Mill, and Wheaton. For more information about Saturday Schools contact your local school or check the Saturday School website, *www.saturdayschool.org*.

School Safety and Security

Student safety is a high priority at each school. Each middle school has a local school discipline policy that aligns with MCPS regulations. Schools integrate character education as a component of the instructional program. A security assistant is assigned to each middle school. Parents/Guardians are encouraged to report concerns to the school administration about their child's safety. Educating children about the Internet is the first step in ensuring their online safety. Information and resources are available at *www.montgomeryschoolsmd.org/info/cybersafety/*. Parents/Guardians can call the CyberSafety hotline at 301-279-3669 or contact their school immediately to report concerns.

MCPS high schools offer a variety of instructional models to meet the needs of students. As a middle school student, it is important to become aware of special program options that may be available to you in high school so that you can make the best choices based on your academic talents, interests, needs, and career goals. Early investigation of these programs is important so that you can be sure you are selecting courses while in middle school that meet any academic eligibility requirements. For information about high school special programs, such as those for International Baccalaureate (IB) programs, Career and Technology Education (CTE) career pathway programs, or special internships, go to *http://www.montgomeryschoolsmd.org/curriculum/ specialprograms/*. A selection of Advanced Placement (AP) courses is offered at every high school.

Students whose home schools are part of the Northeast Consortium (Blake, Paint Branch, Springbrook) or the Downcounty Consortium (Blair, Einstein, Kennedy, Northwood, Wheaton) will participate in the school choice process. For more information about this process, please contact the Division of Consortia Choice and Application Program Services at 301-592-2040 or visit the website, *www.montgomeryschoolsmd.org/departments/ schoolchoice*.

Maryland Diploma Requirements

The state of Maryland authorizes one diploma for all high school graduates. Students must satisfactorily complete course credit, student service learning, and Maryland assessment requirements.

Students shall be enrolled in a Montgomery County public school and have earned a minimum of 22 credits that include the following:

MCPS GRADUATION REQUIREMENTS AT A GLANCE			
English	4 credits		
Fine Arts	**1 credit** Selected courses in art, dance, drama/theatre, and music that satisfy the fine arts requirement are designated **FA**		
Health Education	0.5 credit		
Mathematics	**4 credits** must include 1 full-year (A/B) algebra credit, and 1 geometry credit **NEW STATE REQUIREMENT FOR STUDENTS GRADUATING IN 2018 AND LATER:** Students graduating in 2018 and later must be enrolled in a mathematics-based course each year of high school. This may result in students earning more than 4 credits in math for graduation.		
Physical Education	1 credit		
Science	**3 credits,** including at least 1 biology credit (**BC**) and 1 physical science credit (**PC**).		
Social Studies	**3 credits** must include 1 U.S. History credit; 1 World History credit; and 1 National, State, and Local (NSL) Government credit		
Technology Education (TE)	**1 credit** designated **TE**. Advanced Technology (**AT**) courses do not satisfy the **TE** course requirement.		
Electives: The additional credits required for graduation may be fulfilled by one of the following three options	**OPTION 1**	**OPTION 2**	**OPTION 3**
	2 credits in a world language **OR** 2 credits in American Sign Language **AND** **2.5 credits** in elective courses	**2 credits** in advanced technology education (**AT**) **AND 2.5 credits** in elective courses. **TE** courses **do not** count as **AT** course credit.	**4 credits** in a state-approved Career and Technology Education Program of Study (**POS**) **AND** **0.5 credit** in electives courses
Student Service Learning (SSL)	75 service-learning hours (See page 4 for more information.)		
MHSA	See page 4 for more information about testing requirements.		
Up-to-date graduation requirements by class may be found at *http://www.montgomeryschoolsmd.org/curriculum/ graduation-requirements.aspx*			

ENGLISH

English 6 (7880)

This course integrates the five English/language arts processes (reading, writing, listening, speaking, and viewing) and the two contents (language and literature) in a thematic organization of four units. Rigor and challenge are essential components of the instructional approach to English 6, and instruction in reading and writing strategies, grammar, and vocabulary is embedded in every unit.

Teachers will implement the curriculum through the following thematic units:

UNIT 1: FOUNDATIONS

UNIT 2: ADVENTURES

UNIT 3: CHALLENGES AND BARRIERS

UNIT 4: ARTISTIC CHOICES

Students read, analyze, and study different genres related to each of the themes and complete required common tasks. The common tasks focus primarily on the writing process for three types of writing—argument, narrative, and informative/explanatory—and they include the use of information, word processing, and presentation technology to address a variety of language skills. Students have opportunities to present their work orally and through various technology tools. All students develop portfolios and revisit their compositions as they work to strengthen their writing skills.

Advanced English 6 (7896)

This course involves implementation of the English 6 curriculum for motivated students with a lively interest in the power and 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.

English 7 (1001)

This course integrates the five English/language arts processes (reading, writing, listening, speaking, and viewing) and the two contents (language and literature) in a thematic organization of four units. It builds on the students' experiences in English 6, involving greater rigor and challenge in the instructional approach to the study of English.

Teachers will implement the curriculum through the following thematic units:

UNIT 1: IDENTITY

UNIT 2: A SENSE OF PLACE

UNIT 3: PERSPECTIVES

UNIT 4: EXPRESSIONS

Students in English 7 examine language and literature in the context of the challenges people face. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. Core texts include multicultural, contemporary, and classic titles. The common tasks focus primarily on the writing process for three types of writing—argument, narrative, and informative/explanatory— and they include the use of information, word processing, and presentation technology to address a variety of language skills.

Students have opportunities to present their work orally and through various technology tools. Instruction in reading and writing strategies, grammar, and vocabulary is embedded in every unit. All students develop portfolios and revisit their compositions as they work to strengthen their writing skills. English 7 prepares students—through activities integrated into each thematic unit—for county, state, and national assessments.

Students are awarded 10 SSL hours at the completion of English 7 for their full participation in SSL activities.

Advanced English 7 (1014)

This course involves implementation of the English 7 curriculum for motivated students with a lively interest in the power and versatility of language. 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.

Students are awarded 10 SSL hours at the completion of English 7 for their full participation in SSL activities.

English 8 (1002)

English 8 is composed of two semester courses: Writing and Language 8A and Literature and Language 8B.

Writing and Language 8A—like its counterpart in ninth grade—puts writing at the center of teaching and learning. The course focuses on developing the skills students need to communicate effectively for a variety of purposes, audiences, and media in a world in which the means for communication are rapidly changing. The writing class is a workshop: Students write every day, keep a portfolio to track progress and set goals, and explore ways to convey their own voice. They read as writers, analyzing short texts, practicing the writers' techniques, and imitating the style and sentence structures of published authors. They study literature and language as an integral part of the writing and revision process. Students write to explore their own thinking, engage in reflection, and learn each day that they have control over improving their craft.

Literature and Language 8B—like the first semester course—parallels English 9B. Both courses center on the study of language and literature as the vehicle of creative and critical thought that enables students to think about and understand the world. The focus shifts in the second semester to a careful study of how professional writers create stories

and use language in thoughtful and deliberate ways. Students read short stories, novels, nonfiction, drama, and poetry and explore how writers use the same techniques students have practiced in their own writing. Through careful reading of both print and non-print texts, students search for understanding and sometimes learn to be comfortable with ambiguity in a world of people who have both common and diverse experiences. The course is composed of three thematic units:

UNIT 1: LITERATURE AS CRAFT

UNIT 2: LITERATURE IN CONTEXT

UNIT 3: LITERATURE AS ART

Instruction in reading and writing strategies, grammar, and vocabulary is embedded in every unit. All students develop portfolios and revisit their compositions as they work to strengthen their writing skills. English 8 prepares students for the rigors of high school English classes as well as for county, state, and national assessments.

Advanced English 8 (1185)

This course involves implementation of the English 8 curriculum for 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, at times making interdisciplinary connections with historical events and concepts developed in their Grade 8 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.
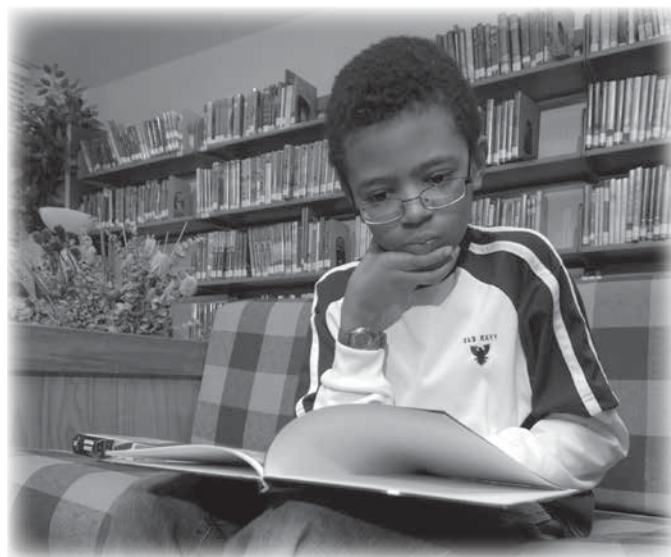
LITERACY

Digital Literacy 1 (1057)

The Digital Literacy 1 curriculum focuses on developing critical and creative thinking through reading, writing, speaking, listening, and viewing in a 21st century approach. Working through a problem-based process, students learn to define real world problems of interest, research the causes of those problems using real-time global texts, and then create solutions to address the problems. Students will advance their understanding of comprehension, analysis, and evaluation of text as well as vocabulary acquisition through reading complex informational and argumentative texts in a technology-rich medium. Students will collaborate regularly through research and solution phases of their investigations. Students' curiosity and motivation will engage them in their investigations while learning and refining the processes that will enrich all other courses and prepare them for college and career projects.

Digital Literacy 2 (1058)

The Digital Literacy 2 curriculum focuses on increasing critical and creative thinking through reading, writing, speaking, listening, and viewing through an integrated approach. By participating in a problem-based process, students learn to define, analyze, and evaluate real world problems of interest related to standards-based curriculum topics. Students will use research skills to investigate problems using real-time global texts and then create solutions to address the problems. Students will participate in sustained inquiry, analysis, and evaluation of text through reading complex informational, expository, and argumentative texts in a technology-rich medium. Students will hone their communication, collaboration, research, and problem-solving skills and learn to give, receive, and use feedback to improve their process and products during complex tasks. Digital Literacy creates authentic work for students to engage in by allowing for presentation of their solutions beyond the walls of the classroom.

Challenging Problem or Question

SEMESTER 1: HUMANITIES

SEMESTER 2: STEM

Digital Literacy 3 (1059)

The Digital Literacy 3 curriculum focuses on increasing critical and creative thinking through reading, writing, speaking, listening, and viewing through an integrated approach. Students will be introduced to a variety of social issues from various perspectives, examine the history of social movements and the impact on social and economic justice, explore their identity, and understand the ways in which communities can respond to these complex issues. Students will explore social justice terminology in order to better advocate for a socially just society. They will have multiple opportunities to participate in book clubs, where they will interact with

classmates to analyze social justice texts. Students will participate in sustained inquiry, analysis, and evaluation of text through reading complex informational, expository, and argumentative texts in a technology-rich medium. Students will use research skills to investigate a contemporary social issue using real-time global texts and then create solutions to address the issue at the individual and/or systemic level.

READING

Read 180 (1012)

READ 180 is an intensive reading intervention program designed to meet the needs of students whose reading achievement is below the proficient level. The program directly addresses individual needs through adaptive and instructional software, high-interest reading materials, and direct instruction in reading and writing skills. Students rotate among a small group, teacher-directed lesson, a computer station for reinforcement and practice, and an independent reading center where students read books at their reading level. The program is designed to rapidly accelerate student achievement with the goal of bringing students to grade level.

ESOL

Academic Language (1228/1229)

This course is designed to introduce ESOL Level 1 students to the academic language of social studies, science, and math. Students will be given the opportunity to develop the academic language and learning strategies to effectively access each of the academic content areas in a new language. This course is scheduled to take place during a single period on a daily basis.

Level 1 (1261)

This course is designed to teach English as a new language to Entering ESOL students. The four skill areas of reading, writing, listening, and speaking are integrated as they practice oral and written language in an academic context. Students have various learning activities that emphasize vocabulary development and oral fluency. This course meets for a double period every day.

Level 2 (1262)

This course is designed to teach English as a new language to Emerging ESOL students. Students continue to develop proficiency in four skill areas of reading, writing, listening, and speaking and are integrated as they practice oral and written language in a variety of academic contexts. Learning experiences are provided to support students as they read informational and literary texts.

Students also learn to respond to factual questions and write paragraph summaries about their readings. This course meets for a double period every day.

Level 3 (1263)

This course is designed to teach English as a new language to Developing ESOL students. The four skill areas of reading, writing, listening, and speaking are integrated as students practice oral and written language in an academic context. Students at this level of language proficiency understand basic vocabulary dealing with everyday home and school life. Students learn to analyze reading passages and respond to both factual and inferential questions as they read and discuss both literary and informational texts. Students practice speaking fluency, applying editing skills to their writing, and composing different types of paragraphs using grammatical structures that have been taught. This course meets for a single period every day.

Level 4 (1264)

This course is designed to teach English as a new language to Expanding ESOL students. The four skill areas of reading, writing, listening, and speaking are integrated as students practice applying language using a variety of academic functions, academic vocabulary, and grammatical structures in context, both orally and in writing, for a variety of academic purposes in discourse. Students practice using various reading strategies while reading a variety of literary and informational texts. Students practice writing single-text and multiple-paragraph essays. In this course, they review known text structures (problem and solution, sequence, main idea and detail, comparison and contrast); study text structure as a guide to increased comprehension; and focus on cause and effect as a structure. Students study poetry, its elements, and its interpretation as they read, analyze, and respond to poetry. They discuss and write comparisons of related ideas in two forms— poetry and prose. This course meets for a single period every day.

Level 5 (1265)

This course is designed to teach English as a new language to Bridging ESOL students. Students practice applying language in the four skill areas of reading, writing, listening, and speaking, both orally and in writing, during extended discourse. As students expand their vocabulary and increase their control of English, they practice using sophisticated sentence structures by connecting ideas and combining sentences to form compound or complex sentences, in context, when speaking and writing. Students focus on expressing their ideas in a paragraph format. Emphasis is placed on forming introductory and concluding paragraphs. Students employ the writing process to produce five-paragraph essays. Students also select a research topic, research the topic, analyze the data, write a report, and make a presentation. In order to become more effective essay and report writers, students learn about paraphrasing and plagiarism. While conducting research, students practice using electronic-literacy skills. This course meets for a single period every day.

MATHEMATICS

The goal of the Montgomery County Public Schools preK–12 mathematics program is for all students to achieve mathematical proficiency through mastery of mathematical skills, concepts, and processes. The end result is the ability to think and reason mathematically and use mathematics to solve problems in authentic contexts.

For each of the courses described below, the topics of study may not necessarily be taught in the order listed.

Curriculum 2.0 Mathematics 6 (3016)

Curriculum 2.0 (C2.0) Math 6 extends students' understanding of whole number and fraction concepts developed throughout the elementary grades. Instruction at this level will focus on four areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

The content of Curriculum 2.0 (C2.0) Math 6 focuses on the Standards for Mathematical Practice to build a climate that engages students in the exploration of mathematics. The Standards for Mathematical Practice are habits of mind applied throughout the course so that students see mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Through this course, students will do the following:

- Reason about multiplication and division to solve ratio and rate problems about quantities.

- Use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense.
- Understand the use of variables in mathematical expressions.
- Build on and reinforce the understanding of number, to develop the ability to think statistically.
- Reason about relationships among shapes to determine area, surface area, and volume.

TOPICS OF STUDY:
- Ratios and Proportional Relationships
  - Understand ratio concepts and use ratio reasoning to solve problems.
- The Number System
  - Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
  - Multiply and divide multi-digit numbers and find common factors and multiples.
  - Apply and extend previous understandings of numbers to the system of rational numbers.
- Expressions and Equations
  - Apply and extend previous understandings of arithmetic to algebraic expressions.
  - Reason about and solve one-variable equations and inequalities.
  - Represent and analyze quantitative relationships between dependent and independent variables.
- Geometry
  - Solve real-world and mathematical problems involving area, surface area, and volume.

Curriculum 2.0 Investigations into Mathematics (3001)

Curriculum 2.0 (C2.0) Investigations into Mathematics (IM) extends students' understanding of mathematical concepts developed in C2.0 Mathematics 6 and accelerates the pace of instruction to prepare for C2.0 Algebra 1. This course compacts all of the Grade 7 Common Core State Standards (CCSS) and much of the Grade 8 CCSS into a single year. Students who successfully complete C2.0 IM are prepared for C2.0 Algebra 1 in Grade 8. The remaining Grade 8 CCSS are compacted into the C2.0 Algebra 1 course. Instruction for C2.0 IM will focus on four critical areas: (1) developing a unified understanding of number, recognizing fractions, decimals (including both those that have a finite or a repeating decimal representation), and percents as different representations of rational numbers; (2) using linear equations and systems of linear equations to represent, analyze, and solve a variety of problems; (3) comparing two data distributions and reasoning about differences between populations; (4) analyzing geometric relationships in order to solve real-world mathematical problems.

C2.0 IM focuses on the Standards for Mathematical Practice to build a climate that engages students in the exploration of mathematics. The Standards for Mathematical Practice are habits of mind applied throughout the course so that students

see mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Through this course, students will—

- Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide positive and negative rational numbers.
- Create and interpret numerical and algebraic expressions and equations in one variable.
- Develop understanding of proportionality through the use of linear equations and systems of equations to solve and graph single- and multi-step real-world and mathematical problems.
- Reason about geometric relationships among two-dimensional and three-dimensional figures.
  - Compare two data distributions and generate data sets by random sampling.
  - Investigate chance processes and develop, use, and evaluate probability models.

TOPICS OF STUDY:
- Rational Numbers and Exponents
  - Apply and extend previous understandings of operations with fractions to rational numbers.
  - Develop understanding of irrational numbers by using rational approximations.
  - Develop understanding of radicals and integer exponents.
- Proportionality and Linear Relationships
  - Analyze proportional relationships and use them to solve problems.
  - Understand the connections between proportional relationships, lines, and linear equations.
  - Analyze and solve linear equations and pairs of simultaneous linear equations.
- Statistics and Probability
  - Use random sampling to draw inferences about a population and compare two populations.
  - Develop understanding of probability models.
- Creating, Comparing, and Analyzing Geometric Figures
  - Construct and describe geometric figures through understanding of congruence and similarity.
  - Investigate angle measures, area, surface area, and volume of geometric figures.

Curriculum 2.0 Mathematics 7 (3017)
Curriculum 2.0 (C2.0) Mathematics 7 extends students' understanding of mathematical concepts developed in C2.0 Mathematics 6. Instruction at this level will focus on four areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Students who successfully complete this course will be ready for C2.0 Mathematics 8 in Grade 8, strengthening their foundation for the Common Core State Standards Algebra 1 in Grade 9.

Curriculum 2.0 (C2.0) Mathematics 7 focuses on the Standards for Mathematical Practice to build a climate that engages students in the exploration of mathematics. The Standards for Mathematical Practice are habits of mind applied throughout the course so that students see mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Through this course, students will—

- Develop understanding of proportionality to solve and graph single- and multi-step real-world and mathematical problems.
- Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide positive and negative rational numbers.
- Create and interpret numerical and algebraic expressions and equations in one variable.
- Reason about geometric relationships among two-dimensional and three-dimensional figures.
- Compare two data distributions and generate data sets by random sampling.
- Investigate chance processes and develop, use, and evaluate probability models.

TOPICS OF STUDY:
- Ratios and Proportional Relationships
  - Analyze proportional relationships and solve real-world and mathematical problems.
- The Number System
  - Apply and extend previous understandings of operations with fractions to rational numbers.
- Expressions and Equations
  - Use properties of operations to generate equivalent expressions.
  - Create, interpret, and solve numerical and algebraic expressions and equations.
- Geometry
  - Draw, construct, and describe geometrical figures and describe the relationships between them.
  - Investigate problems involving angle measure, area, surface area, and volume.
- Statistics and Probability
  - Use random sampling to draw inferences about a population.
  - Draw informal comparative inferences about two populations.
  - Investigate chance processes and develop, use, and evaluate probability models.

Curriculum 2.0 Mathematics 8 (3018)
Curriculum 2.0 (C2.0) Mathematics 8 extends students' understanding of mathematical concepts developed in C2.0 Mathematics 6 and 7. Instruction at this level will focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and

three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem. Students who successfully complete this course will be ready for C2.0 Algebra 1 in Grade 9.

Curriculum 2.0 (C2.0) Mathematics 8 focuses on the Standards for Mathematical Practice to build a climate that engages students in the exploration of mathematics. The Standards for Mathematical Practice are habits of mind applied throughout the course so that students see mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Through this course, students will do the following:

- Use linear equations and systems of linear equations to represent, analyze, and solve a variety of problems, including the association between two quantities in bivariate data.
- Solve and analyze situations using systems of two linear equations in two variables and relate the systems to pairs of lines in the plane.
- Understand that functions describe situations where one quantity determines another.
- Use ideas about distance and angles to describe and analyze two-dimensional figures.
- Understand and apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons.
- Complete their work on volume by solving problems involving cones, cylinders, and spheres.

TOPICS OF STUDY:
- The Number System
    - Know that there are numbers that are not rational, and approximate them by rational numbers.
- Expressions and Equations
    - Work with radicals and integer exponents.
    - Understand the connections between proportional relationships, lines, and linear equations.
    - Analyze and solve linear equations and pairs of simultaneous linear equations.
- Functions
    - Define, evaluate, and compare functions and use functions to model relationships.
- Geometry
    - Understand congruence and similarity using physical models
    - Understand and apply the Pythagorean Theorem.
    - Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.
- Statistics and Probability
    - Investigate patterns of association in bivariate data.

Curriculum 2.0 Algebra 1 (3111/3112)

HS credit

Curriculum 2.0 (C2.0) Algebra 1 is designed to analyze and model real-world phenomena. Exploration of linear, exponential, and quadratic functions forms the foundation of the course. Key characteristics and representations of functions—graphic, numeric, symbolic, and verbal—are analyzed and compared. Students develop fluency in solving equations and inequalities. One- and two-variable data sets are interpreted using mathematical models.

C2.0 Algebra 1 focuses on the Standards for Mathematical Practice to build a climate that engages students in the exploration of mathematics. The Standards of Mathematical Practice are habits of mind applied throughout the course so that students see mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Through this course, students will do the following:

- Develop fluency and master writing, interpreting, and translating between various forms of linear equations and inequalities in one variable, and using them to solve problems.
- Solve simple exponential equations that rely only on the application of the laws of exponents.
- Interpret functions (graphically, numerically, symbolically, verbally), translate between representations, and understand the limitations of various representations.
- Use regression techniques to describe approximately linear relationships between quantities and look at residuals to analyze the goodness of fit and use more formal means of assessing how a model fits data .
- Compare the key characteristics of quadratic functions to those of linear and exponential functions and select from among these functions to model phenomena.
- Explore more specialized functions—absolute value, step, and those that are piecewise-defined and select from among these models to model phenomena and solve problems.

TOPICS OF STUDY:
- Relationships between Quantities and Reasoning with Equations
    - Linear Equations in One Variable
    - Linear Inequalities in One Variable
    - Exponential Equations in One Variable
- Linear and Exponential Relationships
    - Characteristics of Functions
    - Constructing and Comparing Linear and Exponential Functions
    - Solving Systems of Equations and Inequalities in Two Variables
- Descriptive Statistics
    - Analyzing Data Representations
- Quadratic Relationships
    - Quadratic Functions
    - Equations in Two Variables
    - Solving Quadratic Equations
- Generalizing Function Properties
    - Function Families

Curriculum 2.0 Honors Geometry (3203/3204)

HS credit

Curriculum 2.0 (C2.0) Honors Geometry formalizes and extends students' geometric experiences from the elementary and middle school grades. Students explore more complex geometric situations and deepen their understanding of geometric relationships, progressing toward formal mathematical arguments. Instruction at this level will focus on the understanding and application of congruence as a basis for developing formal proofs; the relationship among similarity, trigonometry, and triangles; the relationship between two- and three-dimensional objects and their measurements; exploration of geometric descriptions and equations for conic sections; and application of geometric concepts in modeling situations.

Curriculum 2.0 (C2.0) Honors Geometry focuses on the Standards for Mathematical Practice to build a climate that engages students in the exploration of mathematics. The Standards of Mathematical Practice are habits of mind applied throughout the course so that students see mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Through this course, the student will do the following:

- Prove theorems and solve problems about triangles, quadrilaterals, and other polygons.
- Apply understandings of similarity and right triangle trigonometry to find missing measures of triangles.
- Utilize the rectangular coordinate system to verify geometric relationships.
- Apply understandings of circles to derive equations and solve problems.
- Measure two- and three-dimensional objects.

TOPICS OF STUDY:

- Congruence
    - Experiment with transformations in the plane
    - Understand congruence in terms of rigid motions
    - Prove geometric theorems
    - Make geometric constructions
- Similarity, Right Triangles, and Trigonometry
    - Understand similarity in terms of similarity transformations
    - Prove theorems involving similarity
    - Define trigonometric ratios and solve problems involving right triangles
    - Apply trigonometry to general triangles
- Circles
    - Understand and apply theorems about circles
    - Find arc lengths and areas of sectors of circles
- Expressing Geometric Properties with Equations
    - Translate between the geometric description and the equation for a conic section
    - Use coordinates to prove simple geometric theorems algebraically
- Geometric Measurement and Dimension
    - Explain volume formulas and use them to solve problems
    - Visualize relationships between two-dimensional and three-dimensional objects
- Modeling with Geometry
    - Apply geometric concepts in modeling situations

SCIENCE

The middle school science program allows students to investigate both the concepts and practices of science and engineering. At each grade level, topics in Life Science, Earth Science, Physical Science, and Engineering are interconnected to show students the relationships that exist between the sciences and 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 is aligned with the Next Generation Science Standards (NGSS) and the Science and Engineering Practices that were adopted by the state of Maryland. High expectations and differentiated instruction allow all students a challenging and engaging access to science.

> Dissection is one of the many instructional methods that may be used in middle school science. Students/parents/guardians may request one of the county's alternatives to dissection in these classes. Alternatives may include such materials as video, charts, diagrams, textbook overlays and computer programs.

Investigations in Science 6 (IS6) (3528)

Investigations in Science 6 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 IS6 center around topics related to matter and its interactions, ecosystem dynamics, human impacts on the environment, energy, and waves. Students engage in science, technology, engineering, and mathematics (STEM) in order to propose solutions to identified problems.

Students are awarded 10 SSL hours at the completion of Grade 6 Science for their full participation in SSL activities.

Investigations in Science 7 (IS7) (3529)

Investigations in Science 7 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 cellular processes, structure and function in living things, genetics, Earth's history, and biological evolution. Students engage in science, technology, engineering, and mathematics (STEM) in order to propose solutions to identified problems.

Investigations in Science 8 (3507)

Investigations in Investigations in Science 8 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 center around topics related to Forces and Motion, Astronomy, Weather and Climate, and Earth's Materials and Processes. Students engage in science, technology, engineering, and mathematics (STEM) in order to propose solutions to identified problems.

SOCIAL STUDIES

The social studies program in middle school builds chronological and thematic understanding of world and United States history, while also 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 their responsibilities as citizens, including meaningfully evaluating financial decisions.

In Grades 6 and 7, the focus of study is on ancient world history and culture from Asia, Africa, Europe, and Latin America. In Grade 8, 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.

World Studies 6 (7883)

Teachers will implement the curriculum in Grade 6 as follows:

UNIT 1: PATTERNS OF SETTLEMENT IN THE ANCIENT AND MODERN WORLDS

UNIT 2: CITIZENSHIP AND GOVERNANCE IN CLASSICAL AND MODERN TIMES

UNIT 3: THE IMPACT OF ECONOMICS IN ANCIENT AND MODERN CHINA

UNIT 4: CULTURAL SYSTEMS: THE FIRST MILLENNIUM AND TODAY

Advanced World Studies 6 (7897)

This course provides enriched opportunities for learning about ancient world history. Building on the current four units of Grade 6 world studies, students will deepen their understanding 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 an ongoing investigation. These historical thinking, reading, and writing skills support success in future Advanced Placement and honors social studies courses.

World Studies 7 (2001)

Teachers will implement the curriculum in Grade 7 as follows:

UNIT 1: THE FOUNDATION OF MODERN POLITICAL SYSTEMS IN EUROPE

UNIT 2: THE INFLUENCE OF CULTURE IN AFRICA

UNIT 3: GEOGRAPHY SHAPES LATIN AMERICA PAST AND PRESENT

UNIT 4: THE IMPACT OF ECONOMICS: ONE WORLD PAST AND PRESENT

Advanced World Studies 7 (2006)

This course extends the content and concepts contained in the four units of World Studies 7. Through the study of world civilizations and global interactions from 1000 CE to 1450 CE, students learn about political, economic, and social systems today. Analysis of primary source texts and visuals is a central method for learning about the past and the challenges of historical interpretation. These historical thinking, reading, and writing skills support success in future Advanced Placement and honors social studies courses.

U.S. History (2002)

Teachers will implement the curriculum in Grade 8 as follows:

UNIT 1: DEMOCRACY: POLITICAL SYSTEM OF THE PEOPLE 1763–1783

UNIT 2: CREATING A NATIONAL POLITICAL SYSTEM AND CULTURE 1783–1815

UNIT 3: GEOGRAPHIC AND ECONOMIC CHANGE SHAPE THE NATION 1815–1850

UNIT 4: A NATION DIVIDED AND REBUILT 1840–1877

Students are awarded 10 SSL hours at the completion of Grade 8 Social Studies for their full participation in SSL activities.

Advanced U.S. History Grade 8 (2005)

This course enhances the four MCPS Grade 8 U.S. History units through the development of skills from high school Advanced Placement courses in history. 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.

Students are awarded 10 SSL hours at the completion of Grade 8 Social Studies for their full participation in SSL activities.

OUTDOOR ENVIRONMENTAL EDUCATION

The Grade 6 MCPS Outdoor Environmental Education Program, known as "Outdoor Ed," provides students with a three day environmental learning experience focused on authentic, engaging, and interdisciplinary lessons. Using the natural world as both a classroom and laboratory, literacy and mathematical skills are integrated into the environmental education experiences. The course of study does the following:

- Provides students with field experiences where scientific practices are used to investigate the environment, and where components of the MCPS Grade 6 curriculum are learned in a real-world setting. Students are engaged in environmental science lessons focused on the local watershed including stream quality analysis, an in-depth study of predator-prey relationships, and the role of humans in caring for the environment.
- Engages students in learning experiences during which they apply classroom learning and utilize critical thinking and problem-solving strategies.
- Fosters inquiry, collaboration, and thinking in an atmosphere that employs various learning modalities and allows for informal and formative assessment.
- Builds positive interpersonal relationships as students learn and practice relationship-building skills with their peers and teachers.
- Encourages students to be active stewards of the environment in their daily life. An environmental Student Service Learning experience is part of the Grade 6 science curriculum.

At "Outdoor Ed," students live in dormitory-style housing at one of three sites, work collaboratively to take care of the dorms and serve each other at meals. A fee is 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. The home school teachers accompany their students and teach several of the lessons at "Outdoor Ed."

PHYSICAL EDUCATION

The middle school physical education program focuses on health-related fitness, movement skills and concepts, and personal and social responsibility. Each physical education unit challenges students to better understand the benefits of physical activity toward fitness, fundamentals of efficient movement in physical activity and sport, and the essentials of responsibility in a movement setting. The learning tasks in physical education emphasize and teach problem-solving and decision-making skills. Students participate in games and activities that promote fitness, develop tactical awareness, and build social qualities.

PE Grade 6 (7891)

By the end of Grade 6, students should know and be able to do the following:

HEALTH-RELATED FITNESS
- Define and compare the health-related fitness components, including aerobic capacity/cardiorespiratory fitness, muscular strength, muscular endurance, and flexibility.
- Define the exercise principles of overload, specificity, and progression.
- Develop a personal fitness plan using the Frequency, Intensity, Time, and Type (FITT) formula.
- Define and calculate target heart rate.

MOVEMENT SKILLS AND CONCEPTS
- Perform fundamental movement skills essential to physical activity and sport.
- Demonstrate creative skill combinations, such as tumbling sequences and dances.
- Create a personal movement (practice) plan.

PERSONAL AND SOCIAL RESPONSIBILITY
- Perform tasks effectively with others in physical activity settings.
- Acquire and maintain relationships that develop a sense of community in physical activity settings.
- Establish and modify personal goals.

PE Grade 7 (7601)

By the end of Grade 7, students should know and be able to do the following:

HEALTH-RELATED FITNESS
- Apply exercise principles to the health-related fitness components to develop and modify a personal fitness plan.
- Calculate and apply methods for measurement of target heart rate and healthy fitness zone.
- Compare the relationship between nutrition and physical activity.

MOVEMENT SKILLS AND CONCEPTS
- Apply basic movement concepts related to defense and offense in personal development and tactical games activities.
- Design and demonstrate creative skill combinations.
- Develop and modify a personal movement (practice) plan.

PERSONAL AND SOCIAL RESPONSIBILITY
- Identify conflict-resolution skills and negotiation tactics to promote a healthy physical activity setting.
- Perform tasks effectively with others in physical activity settings.
- Apply effective time-management strategies to improve movement skills and fitness levels.

PE Grade 8 (7602)

By the end of Grade 8, students should know and be able to do the following:

HEALTH-RELATED FITNESS:
- Apply exercise principles to the health-related fitness components to develop, analyze, and refine a personal fitness plan.
- Apply and analyze methods for measuring target heart rate.
- Distinguish between nutritional needs that maintain the average healthy body and those for athletic performance

MOVEMENT SKILLS AND CONCEPTS
- Apply and analyze concepts related to defense and offense in personal development and tactical games activities.
- Develop, perform, and analyze creative skill combinations.
- Create, analyze, and refine a personal movement (practice) plan based on a variety of feedback.

PERSONAL AND SOCIAL RESPONSIBILITY
- Resolve conflicts and make healthy decisions that promote a sense of community and respect for others in physical activity settings.
- Apply, analyze, and refine effective time-management strategies to improve movement skills and fitness levels.

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. The health skills emphasized throughout the program include analyzing influences, accessing information, interpersonal communication, decision making, goal-setting, self-management, and advocacy.

Health Grade 6 (7609)

This Grade 6 nine-week course includes the following four units of instruction: mental and emotional health; alcohol, tobacco, and other drugs; personal and consumer health; and safety and injury prevention.

Health Grade 7 (7610)

This Grade 7 nine-week course includes the following five units of instruction: mental and emotional health; alcohol, tobacco, and other drugs; personal and consumer health; family life and human sexuality; and disease prevention and control.

Parents/Guardians of Grade 7 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 responsibilities of families, components of healthy relationships, responsible decision making are included in the family life and human sexuality unit. The disease unit includes information about sexually transmitted diseases and infections, including HIV/AIDS. Students who do not return the parent permission form will participate in family life and human sexuality and disease prevention and control units of instruction. Parents/Guardians who object to the content of this instruction will check "No" on the parent permission form and the child will be excused from that unit. If excused, the child will complete an independent-study alternative unit of health education that does not include information about human sexuality or disease prevention, including HIV/AIDS.

Health Grade 8 (7611)

The Grade 8 nine-week course includes the following five units of instruction: alcohol, tobacco, and other drugs; personal and consumer health; family life and human sexuality; safety and injury prevention; and nutrition and fitness.

Parents/Guardians of Grade 8 students will receive information about the family life and human sexuality unit of instruction prior to the start of classroom instruction. Information about components of healthy relationships, human reproduction, sexual limits and responsible decision-making, contraception methods, gestation, prenatal care and parenting skills are included in Grade 8 health education. Students who do not return the parent permission form will participate in family life and human sexuality and disease prevention and control units of instruction. Parents/Guardians who object to the content of this instruction will check "No" on the parent permission form and the child will be excused from that unit. If excused, the child will complete an independent-study alternative unit of health education.

WORLD LANGUAGES

The world languages available in middle schools are Chinese, French, Italian, Japanese, Spanish, and Spanish for Spanish Speakers. *Offerings vary by school.*

The world language courses are high school credit-bearing courses. Please see page 4 for more information about high school credit in middle school.

Course numbers are language and level dependent.

Level 1A/1B   `HS credit`

Students begin to learn to communicate orally and in writing in a culturally appropriate manner about topics related to daily life. They interpret basic information when listening and reading. Vocabulary and basic grammatical structures are taught within the context of these familiar topics. Culture is embedded throughout the course.

NOTE: Levels 1A and 1B may be offered in middle school as full-year courses. In that case, students must pass the full year of 1A and the full year of 1B in order to earn one high school credit.

Level 2A/2B
HS credit

Students expand their ability to communicate orally and in writing in a culturally appropriate manner about topics related to daily life. They interpret information when listening and reading. Vocabulary and grammatical structures are taught within the context of these topics. Culture is embedded throughout the course.

Level 3A/B
HS credit

Students continue to expand their ability to communicate orally and in writing in a culturally appropriate manner about a variety of familiar topics. They interpret detailed information when listening and reading. Vocabulary and more complex grammatical structures are taught within the context of these topics. Culture is embedded throughout the course.

Spanish for Spanish Speakers 1 A/B (1777/1778)
HS credit
Spanish for Spanish Speakers 2 A/B (1779/1780)
HS credit

Spanish for Spanish Speakers 1 A/B and Spanish for Spanish Speakers 2 A/B are offered at selected middle schools. Spanish for Spanish Speakers provides language instruction for students with proficiency in Spanish, either because it is their first language or it is spoken extensively in their home. Each course integrates history, culture, language, and connections related to the Spanish-speaking world.

World Language Immersion

Students who have completed an MCPS elementary school immersion program may join the immersion programs at the middle school level. Students who did not participate in the elementary program may test into an immersion program if there is space available. The following middle schools offer these courses: Silver Spring International Middle School (Spanish/French), Westland Middle School (Spanish), Gaithersburg Middle School (French) and Hoover Middle School (Chinese).

The immersion language courses are high school credit-bearing courses. Please see page 4 for more information about high school credit it middle school.

Grades 6–8 French (1763 through 1768)
HS credit

A two-period program of instruction enables students to enhance their language development through one period of language class and one period of the MCPS social studies curriculum in French.

Grade 6–8 Spanish (1769 through 1774)
HS credit

A two-period program of instruction enables students in Grades 6 and 7 to enhance their language development through one period of language class and one period of the MCPS social studies curriculum in Spanish. In Grade 8, students continue with one period of language instruction.

Grade 6 Chinese (1919/1920)
HS credit

This one-period course continues to build on the language skills acquired in the elementary school immersion program. Students transition into the regular MCPS Chinese 2 course in Grade 7.

FINE ARTS

The purpose of the middle school fine arts curriculum (art, music, dance, and theatre) is to open the minds of students to new worlds and cultures and enable them to creatively express themselves and value the perspectives of others. At each grade level, students actively engage in authentic artistic processes to problem solve and reinforce artistic concepts as involved learners in the arts. Through these artistic experiences, students become creative and critical problem solvers, independent and divergent thinkers, self-motivated workers, and innovators. All students have access to fine arts programs in middle school.

Visual Art

Middle School Art 1 (6002)
Students in this beginning level art class will be introduced to a variety of art materials, creative processes, and vocabulary. Creativity, critical thinking, and communication are strengthened throughout the course. Students review fundamental design skills by using art elements and design principles to create compositions. They will experience a variety of media, including drawing, painting, printmaking, sculpture, ceramics, and crafts. These media are explored and manipulated to create artworks that communicate personal meaning. Students will have opportunities to makes connections to global cultures and develop visual literacy

skills. Students in Grades 6, 7, or 8 with no middle school art experience should begin at level 1 in the visual art sequence.

Middle School Art 2 (6001)

Students in this intermediate level art class expand their knowledge of materials and techniques. Students also use their personal reactions and responses as a focus in their artwork. Creativity, innovation, critical thinking, communication, and collaboration continue to be developed throughout the course. Grade 7 units include design, drawing, painting, ceramics, sculpture, printmaking, and collage. Middle School Art 2 units require students to express personal identity, make aesthetic choices, and initiate social action. Students will continue to build their visual literacy and design skills by using the art elements and design principles to analyze the environment and artworks. Students in Grades 7 or 8 should be included who have one year of middle school art experience as a part of a visual art sequence.

Middle School Art 3 (6011)

Students in this advanced level art class refine their skills and develop their own artistic style. Students continue to explore the role of artists in the past and their influence on contemporary society. Students improve craftsmanship and refine creative processes through units in design, drawing, painting, ceramics, sculpture, printmaking, and collage. Middle School Art 3 units cover art history and techniques using masterworks as inspiration. Creativity, critical thinking, communication, and collaboration are further refined throughout the course as students are presented with opportunities to create art that expresses individual experiences, communicates visual messages, and solves contemporary challenges in innovative ways. Students in Grade 8 with two years of middle school art experience should participate in a third year of a visual art sequence.

Grade 8 Studio Art Electives

Grade 8 students may also enroll in one or more semester courses of in-depth study in one of the following specialized areas:

- Grade 8 Ceramics Studio (6024)
- Grade 8 Drawing and Composition (6022)
- Grade 8 Beginning Photography (6021)
- Grade 8 Digital Art (6005)

These specialized art courses provide students with opportunities to refine and master skills and techniques in specific art media and creative processes. Students will continue to use art elements and design principles to create art that communicates personal meaning. Historically significant and contemporary examples of each art form, representing a variety of cultures, are investigated and explored in the creative process. Students develop a context for understanding art as an aspect of human experience and continue to evaluate and critique personal artwork and the artwork of others.

General Music

World Beat Music Grade 6 (6500)

In this course, students will have the opportunity to learn about music and instruments from a variety of world cultures. Students explore various genres of music through singing, performing on instruments, and creating music. World Beat Music Grade 6 is open to all sixth grade students interested in deepening their understanding and application of musical concepts and historical study.

Music Investigations 1 Grade 7 (6501)

In Music Investigations 1, students develop personal skill in the use of instruments and music technology as a means of creative expression.

Music Investigations 2 Grade 8 (6502)

Music Investigations 2 students increase their knowledge, understanding, and appreciation of music through contact with a greater variety of music literature.

Piano (6522/6523)

Students acquire basic piano technique and learn to read written music notation. Students develop effective practice habits so they will be able to progress independently. Check with your child's counselor to see if this is offered at your school.

Guitar (6589)

Students learn beginning guitar techniques, including selected major, minor, and seventh chords; basic finger picks and strums; and tuning technique. Students develop effective practice habits so they will be able to progress independently. Check with your child's counselor to see if this is offered at your school.

Chorus

Levels I–III (7893, 6690, 6695/6696)

Chorus is offered to students in Grades 6–8 who want to sing and develop their individual and ensemble vocal skills. Chorus is available during the school day to all students, including those enrolled in World Beat Music (Grade 6) or Music Investigations (Grades 7 and 8), Guitar, or Piano. Students should have access to more than one opportunity in music per year if possible. Enrollment is open to all students, but an audition may be required for participation in the school's most advanced choral group. Mastery of breath control, vocal production, diction, intonation, tone blending, singing in harmony, and music-reading proficiency (including sight-singing) are emphasized. Music selected for study and performance is aligned with the content standards for each grade.

Concerts are the culmination of many hours of hard work and provide opportunities for students to demonstrate mastery of the knowledge and skills outlined in the content standards. They are performance assessments that communicate the measure of success in meeting course objectives to both

students and parents. Determining whether students can apply this learning in a public performance is authentic to the real world of music performance. Therefore, participation in all concerts is highly encouraged.

Instrumental Music

Beginning Band, Strings, Wind, and Percussion Instruments
(Band 7892, Strings 6845, Wind and Percussion 6815)

Students with no prior instrumental music experience who wish to participate in a beginning ensemble develop technical skills necessary to perform Grade 1 Level music. (Grade 1 Level music is a performance level established by the National Association for Music Education, not a reference to first grade.) Students develop basic instrumental skills by performing a variety of music. Students study the cultural context of the music and its historical significance as they relate to performance. Students are taught the elements of musical form, terms and symbols, tone production, instrument care and maintenance, and the importance of consistent practice habits. Students may be able to attend live performances and perform in public.

Intermediate Band/Intermediate Orchestra (6880/6800)

Students refine skills learned in Beginning String Instruments/Beginning Wind/Percussion Instruments and develop more advanced performance techniques. The development of technical skills necessary to perform Grade 2 Level music is stressed. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. Students also learn melodic form and construction as they examine and perform more complex folk melodies and melodies from master composers. Students discuss the social and intellectual influences that affected the creation of the music they are studying. They begin to develop aesthetic criteria for measuring the quality of instrumental performance. Students may be able to attend live performances and perform in public.

Prerequisite: *Attainment of outcomes for Beginning String Instruments or Beginning Wind/Percussion Instruments—in Grades 4–5 or 6–8.*

First Year/Level 1 Advanced Band (6830)
First Year/Level 1 Advanced Orchestra (6860)

Students develop and refine their technical skills in order to perform music at the Grade 2 to Grade 3 Level of difficulty. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. Students learn the social, cultural, and intellectual influences reflected in the musical works they are studying and discuss performance styles and musical forms of corresponding historical periods. The study of music theory includes performance and recognition of major scales, diatonic and chromatic intervals, and simple melodic dictation. The critical-listening skills that are developed as a result of preparation for instrumental performance are used to help the student formulate criteria for effectively evaluating personal performance as well as the performance of others. This band or orchestra represents middle schools at public performances.

Prerequisite: *Attainment of outcomes for Beginning String Instruments/ Beginning Wind/Percussion Instruments or Intermediate Band/Intermediate Orchestra.*

Second Year/Level 2 Advanced Band (6890)
Second Year/Level 2 Advanced Orchestra (6900)

Students will distinguish between abstract and programmatic music and learn and discuss the social, intellectual, and historical influences on each. In addition, students perform and historically categorize transcriptions of a variety of composers. This band or orchestra represents middle schools at public performances.

Prerequisite: *Attainment of outcomes for Advanced Band (First year/ Level 1) or Advanced Orchestra (First year/Level 1).*

Theatre
Exploring Theatre 1 (6902)

Exploring Theatre 1 is a one-semester, activity-oriented course designed to engage students to the basic elements of the theatre experience. These include the fundamental techniques of performance, self-expression and confidence-building, group interaction and cooperation, and the appreciation of the aesthetic aspects of theatre. These elements are the foundation for future study of dramatics and the basis for exploration of theatre as an art form.

Experiencing Theatre 2 (6903)

Experiencing Theatre 2 is a one-semester, performance-oriented course in which students investigate and experience aspects of production, aesthetics, criticism, theatre genre, and history within the framework of classroom presentations. Students develop the fundamental techniques of performance through activities involving stage movement, pantomime, voice, oral interpretation, theatre games, role-playing, improvisation, and scene study.

Dance

Check with your child's counselor to see if Dance is offered at your school.

Exploring Dance 1 (6027)

Students identify how the elements of dance are used to communicate meaning and/or represent a theme. Students examine a variety of dance styles and perform popular dances from other cultures.

Fundamentals of Dance 2 (6007)

Students continue their study of multiple dance forms, the unique skills attributed to each, and their historical/cultural significance. Students will develop skills and technique through demonstration of knowledge and application of time, energy, force, shape, and space through movement.

FAMILY AND CONSUMER SCIENCES (4510, 4520)

Family and Consumer Sciences (FACS) programs focus on processes and skills that enhance individual, family, and societal well-being. Programs reflect the National Standards for FACS Education and integrate math, science, English and social studies. A project-based curriculum encourages students to investigate and solve authentic problems. Students learn to use communication and critical-thinking skills as well as current technologies to make informed decisions.

UNIT 1: INDIVIDUAL, FAMILY, AND SOCIETAL NEEDS

UNIT 2: DECISION-MAKING PROCESS

UNIT 3: NUTRITION AND WELLNESS

UNIT 4: PERSONAL FINANCE

UNIT 5: LIVING ENVIRONMENTS

UNIT 6: COLLEGE AND CAREER PLANNING

MULTIMEDIA LITERACY

Lights, Camera, Literacy! (LCL!) (1041, 1042)

This course increases literacy in both written and visual text, improves collaboration skills, builds confidence and motivation, and provides opportunities for high-level thinking via specific strategies. Students transfer their skills as viewers of film to skills on the written page, as well as learn how to read visual text and create effective visual communications. The course focuses on all three areas of the MCPS Moving Image Education—integrating, deconstructing, and creating the moving image. Students transfer reading skills such as inference from screen to script page to book. They use critical-thinking skills and explore new vocabulary in the areas of lexicography, chess, and film. Students deconstruct information at the literary, dramatic, and cinematic levels. Throughout the course, students reflect on their learning through student-to- student discourse and journal writing. They work collaboratively to apply the various skills and use technology to produce an authentic product—a short film.

Lights, Camera, Film Literacy! (LCFL!) (1043)

This course offers a study of film and film history as the core for teaching more advanced literacy skills. Students learn the physics and history of motion pictures, as well as how to apply filmmaking techniques to their own visual communications. Students read one novel as well as shorter written text selections and screenplays. The eight units include How Movies Got their Start, Silent Narrative Films, Early Talkies, Early Color, Genre Classics: The Golden Age of Hollywood, Classic Adaptations: The Golden Age of Hollywood and Beyond, Documentaries, Animation, and The Business of Film and Film Festivals. *(Completion of Lights Camera, Literacy! is not required.)*

Lights, Camera, Media Literacy! (LCML!) (1044)

This course offers a study of media, its history, and basic related physics concepts as the core for teaching even more advanced literacy skills. Lights, Camera, Media Literacy! presents a timeline of media with focus on the history and physics of communication from the earliest times via storytelling by troubadours and griots to today's mass media world. The units include "Storytelling," "The Printing Press," "Newspapers & Print Advertising," "Photography & Film," "Radio," "Television," "Computers and the Internet," and "Media & Our World." Students develop related multimedia projects within each of these units. *(Completion of Lights Camera, Literacy! or Lights, Camera, Film Literacy! is not required.)*

The LCL! course series is of high interest; allows for ease of differentiation; and addresses the visual, auditory, and kinesthetic learner. The LCL! strand focus is on increasing literacy in both written and visual texts, authentic use of vocabulary, improving collaboration skills, building confidence and motivation, and providing opportunities for higher-level thinking.

COMPUTER SCIENCE COURSES

Information and Communication Technology Grade 6 (2913)

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, web-based, and multimedia tools. Programming concepts will be applied to the development of games, educational simulations, and robotic products. The application of computer-aided drafting and design and graphics software is used to communicate 2-D and 3-D designs. Students acquire website-development skills and digital art concepts and use them to create a portfolio. The completion of this course prepares students to follow middle school pathways that lead to high school credit courses in Grade 8. Course outcomes are based on the Maryland Technology Literacy Standards for Grades Pre-K–8 and the Maryland State Department of Education Voluntary State Curriculum for technology education.

Computer Applications (2941)

Computer Applications provides students with active learning experiences related to the productive use of computer-based applications. Students use word processing, spreadsheet presentation, programming, and research skills to complete authentic projects. These courses focus on the selection and use of appropriate technology tools and resources to solve problems and accomplish a variety of tasks. Course outcomes are based on national and state technology standards, such as the International Society for Technology in Education, the National Workforce Center for Emerging Technologies, and the Maryland State Technology Literacy Standards.

UNIT 1: COMPUTER LITERACY INCLUDING HARDWARE AND SOFTWARE

UNIT 2: CYBER-SAFETY

UNIT 3: PRODUCTIVITY TOOLS—PRESENTATION, WORD PROCESSING AND SPREADSHEET

UNIT 4: INTRODUCTION TO PROGRAMMING

Website Development A/B (2991/2992)

HS elective credit

This high-school-level course is for Grade 8 students who would enjoy learning web design from storyboard to finished online web page. The student will develop actual sites from customers' specifications, using XHTML, CSS, and web editors. Skills in streaming media, audio, and simple animation are developed. Project management provides students with skills to lead teams through projects from inception to completion.

Foundations of Computer Science TE A/B (2916/2917)

HS credit

This course provides an engaging introduction to computing concepts through a nationally developed curriculum, offered through a unique partnership with Code.org. The course focuses on the conceptual ideas of computing so that students understand why tools and languages are used to solve problems through a study of human computer interaction, problem solving, web design, programming, data analysis, and robotics.

Introduction to Computers (2940)

This course takes a broad look at computer science topics and covers introduction to programming, basic web design, the use of data, physical computing and logic as well as interactive games and animation. Students will create authentic artifacts and use computer science as a basis for problem-solving, communicating and creativity. Includes units on Design Process and the Internet of Things.

TECHNOLOGY EDUCATION COURSES

Grade 6 Technology and Design (7898)

Students explore and develop an understanding of the scope, characteristics, and core concepts of technology. They recognize the relationships and the connections between technology and other fields of study, while working to understand the attributes of design, and apply the design process through a series of hands-on activities. Students develop skills in the areas of assessing the impacts of products and systems, researching, problem-solving, and developing an attitude of safety, while working collaboratively with others.

Grade 7 Invention and Engineering (3530)

Students develop an understanding of the cultural, social, economic, environmental, and political impact on technology; the role of society in the development and use of technology; and the influence of technology on history. Students use engineering design, troubleshooting, research and development, invention and innovation, and experimentation in problem solving while learning to use and maintain technological systems.

Grade 8 Technology Systems (7899)

Students develop the ability to apply learned knowledge and skills to solve problems involving basic medical technologies, agricultural and related biotechnologies, energy and power technologies, information and communication technologies, transportation technologies, manufacturing technologies, and construction technologies. Emphasis is placed on the study of the human-designed world. Students also develop additional understanding of the nature of technology, technology and society, design, and the abilities needed to succeed in a technological world.

Introduction to Engineering Design A/B TE (5152/5153)

HS TE credit

This high-school-level course is for Grade 8 students who have successfully completed Applied Robotic Engineering with Computer-Aided Drafting and Design. Students develop a design after using computer software to produce, analyze, and evaluate models of projects and solutions. Students study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products.

Please check with your child's school about its 2017–2018 elective course options.