

2019–2020

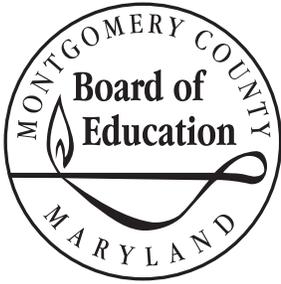
Montgomery County Public Schools

MIDDLE SCHOOL PROGRAM

GUIDE



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*

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January 2019



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 diverse range of engaging courses and programs that will prepare you for the challenges of the 21st century, college, and the workplace. The 2019–2020 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.

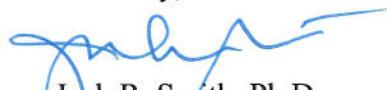
Please remember that each middle school provides information about specific course options available at that school. The information presented on individual school websites provides an overview of each school, including detailed program descriptions of magnet and signature programs, and career-themed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

In addition, we ask that you reference your Naviance Student “High School Graduation, College and Career Planner” as you are selecting your classes. The information in the planner allows you to identify courses to take in high school that will satisfy graduation requirements and ensure that you are college and career ready. Moreover, the planner and your student portfolio provide an opportunity for you to explore career interests and educational and professional options. If you have any questions about the High School Graduation, College and Career Planner, please see your school counselor.

Preparing you to become a productive citizen in a global society is a responsibility we take seriously. We are proud that MCPS employs outstanding, highly skilled, and dedicated teachers, administrators, school counselors, and support professionals to help you enhance your academic skills and prepare you to enter high school and then the college or career of your choice.

I encourage you to enroll in challenging 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



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

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WELCOME TO MIDDLE SCHOOL

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 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.

Immunization Requirements

All students entering Grade 7 and Grade 8 in the 2019–2020 school year must receive one dose of the immunization vaccine for Tetanus-diphtheria-acellular pertussis (Tdap) and one dose of the immunization vaccine for Meningococcal meningitis (MCV4) before the first day of school. These requirements are in addition to the existing Maryland vaccine requirements. An authorized health care provider should complete the Maryland Department of Health Immunization Certificate (Form 896), found at <https://www.montgomeryschoolsmd.org/departments/forms/pdf/mdh%20896.pdf>, to meet this requirement. For information about required immunizations by grade, see the Maryland Department of Health Immunizations web page at <https://phpa.health.maryland.gov/OIDEOR/IMMUN/Pages/back-to-school-immunization-requirements.aspx> and the MCPS enrollment web page at www.montgomeryschoolsmd.org/info/enroll/index.aspx.



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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 1 World Language or Elective* 1 Elective*	English or ESOL Mathematics Science Social Studies Physical Education/Health 1 World Language or Elective*	English or ESOL Mathematics Science Social Studies Physical Education/Health 1 Elective*
*Some elective courses may vary from school to school. During middle school, students are required to take electives that represent a well-rounded curriculum including fine arts and computer science/technology.		

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 to help 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
- 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

Naviance Student

Naviance Student is a web-based tool that provides self-discovery activities and lessons to help students explore and plan their college and career goals, and also allows parents to also be involved in that planning.

Students can discover their individual strengths and talents, explore career and college options, and research the high school courses they need to reach their goals. For more information please visit <https://www.montgomeryschoolsmd.org/career-readiness/naviance-family-connection.aspx>.

Attendance

A commitment to school attendance, on the part of both students and parents/guardians, is an essential component of a high-quality learning experience. Parents/guardians and school personnel are expected to do everything possible to ensure each student's regular attendance. Students should attend all scheduled classes and approved educational activities and are responsible for completing all assigned work on time. Students should be enrolled in a full-day program or spend a comparable period of time in an alternative program or activity approved by the student's parent/guardian and principal. See MCPS Regulation JEA-RA, *Student Attendance*, at www.montgomeryschoolsmd.org/departments/policy/pdf/jeara.pdf.

Grading and Reporting

The Board 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*

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and Reporting (www.montgomeryschoolsmd.org/departments/policy/pdf/ika.pdf) and accompanying MCPS Regulation IKA-RA, *Grading and Reporting* (www.montgomeryschoolsmd.org/departments/policy/pdf/ikara.pdf) set forth expectations and guidance. The Office of Curriculum and Instructional Programs publishes procedures at www.montgomeryschoolsmd.org/info/grading/.

Procedures for Grading

Grading procedures will be applied consistently within and among schools. Grading practices must include clear and timely communication, alignment with curriculum, accurate reflection of student achievement, and fair representation of student performance. Grading practices must be fair and manageable, and support effective teaching and learning. Grades on report cards reflect academic achievement in relation to course expectations, as outlined in the MCPS curriculum. Extra credit may not be used. Course-specific procedures for grading are defined, used consistently, and explained clearly to students and parents/guardians in writing at the beginning of a semester or school year.

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 www.montgomeryschoolsmd.org/uploadedFiles/info/grading/SEC_HomeworkProcedures.pdf.

Districtwide Assessments

Required assessments administered districtwide are one component of the body of evidence.

- A districtwide assessment is required to be given at designated times in identified grade levels and identified middle and high school courses.
- In middle and high school courses for which there are districtwide assessments, selected assessments may be calculated as 10 percent of the marking period.

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 Parent Portal

- 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, visit www.montgomeryschoolsmd.org/mymcps-classroom/index.aspx and <https://docs.google.com/document/d/1LwOqYvewTRqgUdg7-w0xyDOkqAyMrPDOwreAHctFyIE/preview#heading=h.89jpmfx65led>.

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.

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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)

The Student Service Learning (SSL) program in MCPS promotes a culture of student involvement and responsibility through civic engagement. Service learning is a graduation requirement in Maryland. MCPS students must complete a minimum of 75 service-learning hours to graduate. They may begin fulfilling this requirement the summer after Grade 5 and continue to accrue SSL hours through high school. Students who earn 260 or more SSL hours receive a **Certificate of Meritorious Service** at the time of graduation. Preparation, action, and reflection are the three phases of service learning that distinguish SSL from traditional volunteering and community service efforts.

The service-learning requirements may be completed through full participation in the SSL activities in specific middle and high school courses, in service activities promoted by school-sponsored clubs and organizations, and 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 Science (Grade 6), English (Grade 7), and Social Studies (Grade 8).

Service learning hours are earned as follows:

- **School Courses**—Successful completion of specific courses identified in this course bulletin, where the three phases of SSL achieve curricular objectives.
- **School Clubs**—Full participation and completion of the three phases of service learning in activities promoted by school-sponsored clubs and organizations.
- **Community Organizations and Opportunities (Must meet MCPS SSL guidelines)**—Full participation in opportunities with community organizations listed on the MCPS SSL website, found at www.mcps-ssl.org. MCPS SSL opportunities are identified on the Montgomery County Volunteer Center (MCVC) web page with the MCPS SSL icon found at www.montgomeryserves.org. Students also may seek approval for other types of service learning by submitting MCPS Form 560-50, *Individual Student Service Learning Request*.

All activities for which SSL hours are desired must occur in a public place, be secular in nature, and be supervised by an

adult representative from a nonprofit, tax-exempt organization. Parents/guardians and relatives may not supervise a student directly. One SSL hour is awarded for every hour of service outside of the instructional day, with a maximum of 8 hours in a 24-hour period. MCPS Form 560-51, *Student Service Learning Activity Verification*, is required to document all activities for which SSL hours are desired. SSL FAQs and more information is available at the MCPS SSL site www.mcps-ssl.org and the MCVC website www.montgomeryserves.org. For individual SSL questions, contact the SSL coordinator in any middle or high school.

High School Credit in Middle School

Middle school students may take selected high school courses for credit. For students who enter Grade 6 during or after the 2018-2019 school year, the final grade and credit earned for high school courses successfully completed while in middle school will be reported on the high school transcript, but will not be calculated into the cumulative GPA, unless requested by the parent/guardian or the student if 18 years old or married (eligible student). Middle school students must meet the same requirements as high school students by earning a final grade of A, B, C, or D each semester. Additional information is in MCPS Regulation IKC-RA, *Grade Point Averages (GPA) and Weighted Grade Point Averages (WGPA)*, found at <https://www.montgomeryschoolsmd.org/departments/policy/pdf/ikcra.pdf>

MARYLAND HIGH SCHOOL COMPREHENSIVE ASSESSMENT PROGRAM (MCAP) REQUIREMENTS ^{1,2,3,4} For Students Graduating in 2023 HSA, PARCC, and MISA Assessments	
ALGEBRA 1	Course credit earned in Algebra 1 AND • Pass Algebra 1 PARCC
MISA Maryland Integrated Science Assessment	3 NGSS courses in Science AND • Pass HS-MISA
ENGLISH 10	Course credit earned in English 10 or ESOL 3 or higher AND • Pass English Language Arts/Literacy (ELA/L) 10 MCAP HSA
GOVERNMENT	Course credit earned in National, State, and Local Government AND • Pass Government HSA

¹ Substitute Test: Students earning qualifying scores on substitute tests (AP/IB) will meet the MCAP HSA requirement in that content area.

² Transfer Credit: Students transferring from outside MD public schools may be eligible to meet some MCAP HSA content area requirements with Transfer Credit.

³ Combined test score options are available for the HSAs and for the PARCC assessments.

⁴ Bridge Plan: The Bridge Plan is an alternative means of meeting the MCAP HSA graduation requirement. With the Bridge Plan, students demonstrate content mastery by completing projects when they have difficulty passing the traditional test.

For additional information regarding MCPS graduation requirements visit www.montgomeryschoolsmd.org/curriculum/graduation-requirements.aspx

Maryland High School Comprehensive Assessment Program

Maryland High School Comprehensive Program (MCAP) are those tests developed for or adopted by 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 "MCAP" encompasses state assessments required by MSDE, including those required for graduation.

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Students take these assessments as they complete the corresponding courses. 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/.

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 are grouped for instruction based on their language needs.

Multidisciplinary Education, Training, and Support

The MCPS Multidisciplinary Education, Training, and Support (METS) program 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 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 environments. The METS program is offered at selected middle and high schools.

Special Education Instruction

If a student has an Individualized Education Program (IEP) that is still in effect as they transition into middle school, the student will continue to receive the specialized instruction required 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 with 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 may 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. If a student has a Section 504 Plan that is still in effect as they transition into middle school, the student will continue to receive the specialized instruction required to address their academic needs. 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. Please visit the MCPS website for more information 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 staff to develop and implement a school-based alternative program. This program provides 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 Middle Years Programme (MYP) is designed for students ages 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 to become 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, Neelsville, and Silver Creek middle schools.

For more information, contact the Department of Secondary Curriculum and Districtwide Programs (240) 740-3112 or visit the website, www.montgomeryschoolsmd.org/curriculum/specialprograms/.

Magnet and Consortia Programs

Magnet Programs

The Humanities Communication Program is offered at Dr. Martin Luther King, Jr. 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.

WELCOME TO MIDDLE SCHOOL

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 (240-740-3110) 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. 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 access the on-grade-level or above-grade-level curriculum successfully.



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 available 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. See further information in MCPS Regulation IQD-RB, *Academic Eligibility for Middle School Students Who Participate in Extracurricular Activities*, www.montgomeryschoolsmd.org/departments/policy/pdf/iqdrb.pdf.

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

Twelve MCPS schools host The George B. Thomas, Sr. Learning Academies programs (Saturday School) on Saturday mornings providing enrichment, tutoring, and mentoring for students in Grades K–12. The George B. Thomas, Sr. Learning Academy, Inc. was established in 1986 by the Mu Nu Chapter of Omega Psi Phi Fraternity, as an outgrowth of the Saturday School Initiative of Blacks United for Excellence in Education. Saturday Schools are open to all students, regardless of their home school. High school sites include Blair, Clarksburg, Einstein, Gaithersburg, Kennedy, Magruder, Northwest, Paint Branch, Rockville, Springbrook, Watkins Mill, and Wheaton. For more information about Saturday Schools tutoring and the George B. Thomas, Sr. Learning Academies, contact your local school or visit www.montgomeryschoolsmd.org/departments/gbtl/, Or 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. 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 are encouraged to report concerns about their child's safety to the school administration immediately. Also, parents/guardians can call the CyberSafety hotline at 301-279-3669 to report concerns.

PLANNING FOR THE FUTURE

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 to ensure that, while in middle school, you are selecting courses that meet academic eligibility requirements. For information about high school special programs, including International Baccalaureate (IB) programs, Career Readiness Programs of Study, or special internships, go to 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, based on successful fulfillment of four categories of requirements: enrollment, course credit, Student Service Learning (SSL), and assessments developed or adopted by the Maryland State Department of Education (MSDE), collectively referred to as the Maryland High School Comprehensive Assessment Program (MCAP). All course requirements are summarized in the table to the right.

College and Career Readiness

In 2013, the Maryland General Assembly passed the College and Career Readiness and College Completion Act (CCRCCA), aimed at ensuring that all students are prepared for credit-bearing coursework in college and for living-wage careers. The CCRCCA includes the requirement that all students be assessed for college and career readiness in English and mathematics by the end of Grade 11, using one of several college and career readiness assessments. Students who do not meet the college and career ready standard in English or mathematics by the end of Grade 11 will be required to enroll in a transition course or other instructional opportunity during Grade 12, in preparation for reassessment. After

completing the transition course or instructional opportunity, students must be reassessed by the end of Grade 12. School counselors and staff will work closely with students to determine the best assessment to take in Grade 11, as well as transition course options and reassessment during Grade 12, if necessary. More information about college and career readiness for the graduating class of 2023 is available on the website, www.montgomeryschoolsmd.org/info/CCRCCA/.

Course Credits

Students shall be enrolled in Montgomery County Public Schools (MCPS) and have earned a minimum of 22 credits that include the following (unless a preapproved MCPS alternative is satisfied):

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, including 1 with instruction in algebra aligned with the Maryland High School Assessment for algebra or one or more credits in subsequent mathematics courses for which Algebra I is a prerequisite, and 1 with instruction in geometry aligned with the content standards for geometry. NEW STATE REQUIREMENT FOR STUDENTS IN 2018 AND LATER: Students graduating in 2018 and later must be enrolled in a math course in 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 Next Generation Science Standard (NGSS) credits, including 1 life science 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, which may include 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.	Complete a state-approved Career Readiness Program of Study (POS) AND 0.5 credit in electives courses
STUDENT SERVICE LEARNING (SSL)	75 service-learning hours		
Up-to-date graduation requirements by class may be found at www.montgomeryschoolsmd.org/curriculum/graduation-requirements.aspx			

New State Requirements for Students Graduating in 2018 and Later

Students graduating in 2018 and later must enroll in a math course in each year of high school. This may result in students earning more than 4 credits in math for graduation.

MIDDLE SCHOOL COURSES

Montgomery County Public Schools Certificate of Merit

In addition to the Maryland high school diploma, students who meet the following requirements may be awarded the MCPS Certificate of Merit, a diploma endorsement:

- **Advanced Courses**—Students must earn at least 12 credits in advanced courses designated by MCPS as applicable to the Certificate of Merit (CM). CM courses contribute to a weighted GPA only when the course is also identified as Advanced Level (AL). All courses to be counted toward the Certificate of Merit must be taken for a letter grade.
- **Mathematics Requirement**—Students must successfully complete and/or receive credit for an MCPS Algebra 2 course.
- **Cumulative Grade Point Average**—Students must obtain at least a 3.0 unweighted cumulative grade point average.

Maryland Seal of Biliteracy

High school graduates who can function in two or more languages are equipped with the knowledge and skills to participate successfully in college, careers, and a diverse 21st century society. The Maryland Seal of Biliteracy is a diploma endorsement, authorized by Maryland law, that recognizes a student's high level of proficiency in listening, speaking, reading, and writing in one or more languages other than English. To receive a Maryland Seal of Biliteracy, a student must do the following:

- Pass the Maryland High School Assessment in English 10; AND
- Demonstrate Intermediate High proficiency in listening, speaking, reading, and writing in a language other than English, as measured by assessments that are aligned to ACTFL (The American Council on the Teaching of Foreign Languages) proficiency guidelines.

For more information about the approved assessments, please visit the website <http://marylandpublicschools.org/about/Pages/DCAA/World-Languages/Biliteracy/index.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.

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.

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 using 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.

MIDDLE SCHOOL COURSES

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 nonprint 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.

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.

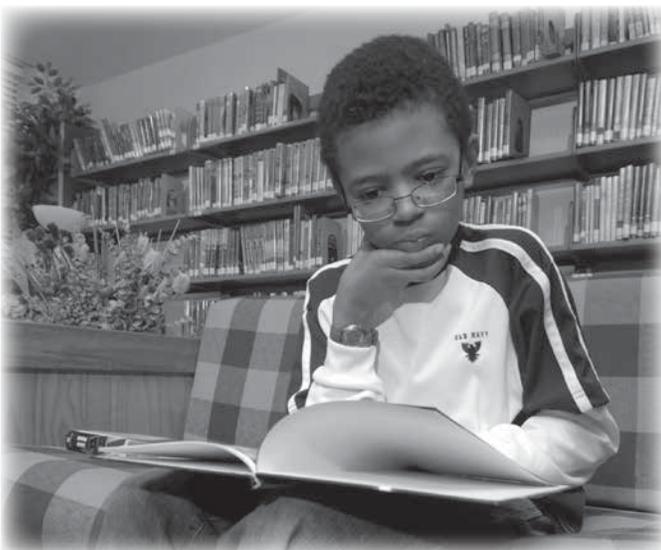
LITERACY

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



MIDDLE SCHOOL COURSES

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.

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.

MS Academic Literacy (1063)

This course involves implementation of iLit, a reading intervention program designed to meet the needs of struggling readers through differentiated instruction, computer adaptive instruction, background-knowledge-building videos, high-interest literature, and explicit instruction in reading, writing, and vocabulary skills

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 lessons, 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 access effectively 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.



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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 fluently, 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.

Academic Acceleration for English Language Learners (AAELL) (#1267)

This course is designed to teach English a new language to Advanced ESOL students who have not exited the ESOL program. Students deepen their ability to process and produce the academic language of College and Career Readiness Standards. They demonstrate their knowledge of language,

the conventions of standard English, and vocabulary usage as they interpret facts, make claims and evaluate evidence, make arguments, and engage in discourse around complex texts about various topics and contexts. They listen, speak, read and write using multimedia and texts sets that include literary and expository texts.

MATHEMATICS

The goal of the Montgomery County Public Schools pre-K–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.

Mathematics 6 (3016)

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 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.

MIDDLE SCHOOL COURSES

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.

Applied Investigation in Math 6: (Applied IM) (3006)

Applied IM extends students' understanding of mathematical concepts aligned with Common Core State Standards (CCSS), accelerating the pace of instruction while diving deeper into concepts at an equal level of intensity. This course compacts all of the Grade 7 Common Core State Standards and much of the Grade 8 Common Core State Standards into a single year. However, this is much more than an accelerated mathematics course as the program offers access to many academic competitions and the opportunity to conduct fieldwork. Students work with an academic cohort to conduct independent inquiries using mathematics computer science, and the scientific process to solve real-world problems

Investigations into Mathematics (3001)

Investigations into Mathematics (IM) extends students' understanding of mathematical concepts developed in Mathematics 6 and accelerates the pace of instruction to prepare for 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 IM are prepared for Algebra 1 in Grade 8. The remaining Grade 8 CCSS are compacted into the Algebra 1 course. Instruction for 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; and (4) analyzing geometric relationships in order to solve real-world mathematical problems.

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.

Mathematics 7 (3017)

Mathematics 7 extends students' understanding of mathematical concepts developed in 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

MIDDLE SCHOOL COURSES

volume; and (4) drawing inferences about populations based on samples. Students who successfully complete this course will be ready for Mathematics 8 in Grade 8, strengthening their foundation for the Common Core State Standards Algebra 1 in Grade 9.

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 an 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.

Mathematics 8 (3018)

Mathematics 8 extends students' understanding of mathematical concepts developed in 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; and (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 Algebra 1 in Grade 9.

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.

MIDDLE SCHOOL COURSES

Algebra 1 (3111/3112)

HS credit

Grade 7 Algebra I TBD

Algebra 1 is designed to analyze and model real-world phenomena. Exploration of linear, exponential, and quadratic functions form 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

Honors Geometry (3203/3204)

HS credit

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.

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



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- 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 engages students in the exploration of 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 provides opportunities for students to actively engage in the science and engineering practices and apply the crosscutting concepts to deepen their understanding of core ideas across science disciplines. The curriculum is problem/project-based; instruction is woven around a relevant problem/project that drives student learning. Students apply their understanding of science, technology, engineering, and mathematics (STEM) to propose solutions to problems. Instruction provides opportunities for hands-on explorations, productive discourse, and purposeful reading and writing.

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

UNIT 1: MATTER AND ITS INTERACTIONS

UNIT 2: ECOSYSTEMS, ENERGY, AND DYNAMICS

UNIT 3: EARTH'S RESOURCES AND HUMAN IMPACTS ON THE ENVIRONMENT

UNIT 4: ENERGY AND WAVES

Investigations in Science 7 (IS7) (3529)

Investigations in Science 7 provides opportunities for students to actively engage in the science and engineering practices and apply the crosscutting concepts to deepen their understanding of core ideas across science disciplines. The curriculum is problem/project-based; instruction is woven around a relevant problem/project that drives student learning. Students apply their understanding of science, technology, engineering, and mathematics (STEM) to propose solutions to problems. Instruction provides opportunities for hands-on explorations, productive discourse, and purposeful reading and writing.

UNIT 1: CELLULAR STRUCTURES AND PROCESSES

UNIT 2: MATTER AND ENERGY FLOW IN ORGANISMS

UNIT 3: INHERITANCE AND VARIATION OF TRAITS

UNIT 4: EARTH'S HISTORY AND BIOLOGICAL EVOLUTION

Investigations in Science 8 (3507)

Investigations in Science 8 provides opportunities for students to actively engage in the science and engineering practices and apply the crosscutting concepts to deepen their understanding of core ideas across science disciplines. The curriculum is problem/project-based; instruction is woven around a relevant problem/project that drives student learning. Students apply their understanding of science, technology, engineering, and mathematics (STEM) to propose solutions to problems. Instruction provides opportunities for hands-on explorations, productive discourse, and purposeful reading and writing.

UNIT 1: FORCES, MOTION, AND INTERACTIONS

UNIT 2: EARTH, THE SOLAR SYSTEM, AND THE UNIVERSE

UNIT 3: WEATHER AND CLIMATE

UNIT 4: EARTH'S MATERIALS AND SYSTEMS

MIDDLE SCHOOL COURSES

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.

Historical Inquiry in 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.

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**

Historical Inquiry into Global Humanities 6 (2120)

This course is built around the core Grade 6 social studies curriculum, Historical Inquiry in World Studies 6, which includes historical content from early civilizations, the empires of Greece and Rome, the dynasties of China, and civilizations of the first millennium. Cohort students will go beyond this core as they learn additional content, explore deeper connections to today, engage in investigative inquiry to strengthen their writing through Document-Based Questions, and enhance their learning through relevant literature connections. They also will participate in a culminating Model UN simulation at the end of the year.

Historical Inquiry in World Studies 7 (2006)

Through the study of world civilizations and global interactions from 1000 CE to 1450 CE, students learn about political, cultural, geographic, and economic systems today and in the past. They study the rise of empires and nation-states in Europe, Africa, and Latin America and the impacts of their interactions still felt today. Building on historical thinking skills learned in Grade 6, students continue to engage in sourcing, close reading, corroboration, investigation, contextualization, and historical interpretation as they examine primary and secondary sources.

Teachers will implement the curriculum in Grade 7 as follows:

- UNIT 1: GEOGRAPHY SHAPES LATIN AMERICA PAST AND PRESENT**
- UNIT 2: POLITICAL SYSTEMS: PURPOSE AND CHANGE IN EUROPE**
- UNIT 3: THE IMPACT OF CULTURAL DIFFUSION IN AFRICA**
- UNIT 4: THE IMPACT OF ECONOMICS: GLOBAL INTERACTIONS**

Historical Inquiry into Global Humanities 7 (2121)

This course is built around the core Grade 7 social studies curriculum, Historical Inquiry in World Studies 7, which includes historical content from civilizations of Latin America, Africa, and medieval Europe as well as global interactions following the Columbian Exchange. Cohort students will go beyond this core as they learn additional content, explore deeper connections to today, engage in investigative inquiry to strengthen their writing through Document Based Questions, and enhance their learning through relevant literature connections. They also will participate in the National History Day (NHD) competition to research historical topics related to a NHD annual theme. (2019-2020 available at 20 middle schools)

Advanced U.S. History Grade 8 (2410)

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.

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**

MIDDLE SCHOOL COURSES

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 meaningful watershed educational experience, focused on relevant, 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 that include water-quality analysis of the local stream, use of a simulation to study population dynamics, and investigation of the impact of humans on the environment.
- Engages students in learning experiences that foster inquiry, collaboration, critical thinking, and problem solving 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 lives. 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. Teachers from each middle school 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.

MIDDLE SCHOOL COURSES

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 skills and lifelong wellness. The health literacy 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 relationship, and 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 and sexually transmitted infections.

Health Grade 8 (7611)

This 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 goal of the world languages program is to prepare students to be linguistically and culturally competent in languages other than English. The ability to communicate in a culturally appropriate manner with speakers of other languages is the key to success in the increasingly diverse global community of the 21st century. As students develop proficiency in world languages and an understanding of the underlying values and beliefs of other cultures, they gain the skills that are essential to meaningful communication. World languages courses must be taken in sequential order.

Students are encouraged to pursue World Language offerings as early as possible in middle school. The world languages offerings vary by school. They 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. The prerequisite for all courses, except 1A, is successful completion of the preceding course or a local placement test.

MIDDLE SCHOOL COURSES

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 in certain middle schools. Spanish for Spanish Speakers courses provide language instruction for students with some proficiency in Spanish, either because it is their first language or it is spoken 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 are encouraged to continue at the middle school level. Students who did not participate in the elementary program may test into an immersion program, if space is 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 in 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 MCPS Chinese 2 course in Grade 7.

FINE ARTS

The fine arts are important to every child's development and play a vital role in providing students with a well-rounded, world class education. Dance, Music, Theatre, and Visual Art promote academic excellence, creative problem-solving, and social emotional learning, which are essential components of college and career readiness. In order to meet the evolving needs of a 21st century learner, the fine arts focus on developing artistic literacy by engaging in the artistic processes (creating, performing/ presenting, responding, and connecting) through authentic materials and techniques. The fine arts introduce students to new world views and cultures, help students to value the perspectives of others, and enable students to creatively express a personal viewpoint. Through artistic experiences, students become independent and divergent thinkers, self-motivated workers, and innovators. All students have access to fine arts programs in middle school. In Grades 6–8, students may specialize in one or more of the fine art forms.



MIDDLE SCHOOL COURSES

Visual Art

Middle School Art 1

Students will be provided with multiple and varied opportunities to explore IDENTITY and the many ways this theme can be represented through visual art. They will develop a fundamental understanding of ideation, media techniques, formal qualities, and compositional devices. Students in Grade 6, Grade 7, and Grade 8 with no previous art experience in middle school should begin at Level 1 in the visual art sequence.

- **Middle School Studio Art 1 (6002):** Students will explore a variety of traditional student media and techniques, including drawing, painting, printmaking, sculpture, ceramics, and crafts to create artworks.
- **Middle School Digital Art and Photography 1 (6122):** Students will utilize raster-based digital media and/or digital photography to create artworks.

Middle School Art 2

Students will explore how the theme of RELATIONSHIPS can be used to create artworks that communicate personal meaning and individual ideas. Students will gain a deeper understanding of how artists generate and conceptualize ideas, refine craftsmanship through practice and persistence, and intentionally arrange compositional elements to communicate meaning effectively. Students with no previous art experience may begin at Level 2, with permission of the visual art teacher.

- **Middle School Studio Art 2 (6001):** Students will refine their ability to use traditional studio media and techniques, including drawing, painting, printmaking, sculpture, ceramics, and crafts to create artworks.
- **Middle School Digital Art and Photography 2 (6123):** Students will design art using both vector- and raster-based software, and/or manually operate a digital camera and utilize photo editing software to create artwork.

Middle School Art 3

Students in Grade 8 with prior visual art experience may continue with Level 3 in the visual art sequence. In Middle School Art Level 3, students will have the opportunity refine their skills and develop their personal artistic style while exploring how INFLUENCE can be communicated through art. Level 3 also offers several specialized art courses that provide advanced-level students with opportunities to refine skills and master techniques in specific art media and creative processes.

- **Middle School Studio Art 3 (6011, formerly Middle School Art 3):** Students will develop a portfolio of work demonstrating proficiency in working with traditional 2D and 3D studio media and techniques including drawing, painting, printmaking, sculpture, ceramics, and crafts to create artworks.
- **Middle School Digital Art 3 (6005, formerly Intro to Computer Art):** Students will refine skills and utilize advanced vector and raster-based software techniques to create works of digital art and design.

- **Middle School Photography 3 (6021, formerly Beginning Photography):** Students will refine skills and utilize advanced techniques by shooting and editing photographic images to create artwork.
- **Middle School Drawing/2D Art 3 (6022, formerly Drawing/Composition):** With an emphasis on drawing, students will develop a portfolio that demonstrates ability to skillfully manipulate 2-D studio media.
- **Middle School Ceramics/Sculpture 3 (6024, formerly Ceramic Studio):** Students will develop a portfolio that demonstrates ability to skillfully manipulate 3-D studio media.

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 1 (6522)

Students will create, perform, and respond to piano music in a variety of styles/genres. Students will learn and develop beginning piano skills and techniques, music literacy, chord chart reading, and basic music theory concepts. They will study cultural, historical, personal, and social context as they relate to piano repertoire. Students will develop effective practice habits so they can progress independently. This course is open to all students, regardless of music background. Check with your child's counselor to see if this is offered at your school.

MS Piano 2 (6523)

Expanding on beginning skills learned in MS Piano 1, students will learn to create, perform and respond to piano music in a variety of styles/genres. They will continue to develop piano skills and techniques learned in MS Piano 1, including expanded study of music literacy, chord chart reading, and basic music theory concepts. Cultural, historical, personal, and social context are studied as they relate to piano repertoire. Students will develop effective practice habits so they can progress independently. Check with your child's counselor to see if this is offered at your school.

MIDDLE SCHOOL COURSES

Guitar 1 (6587)

Students will learn to create, perform, and respond to guitar music in a variety of styles/genres. Students will learn and develop beginning guitar skills, including selected major, minor, and seventh chords; pentatonic scales; basic strumming and picking technique; and tuning technique. They study cultural, historical, personal, and social context as they relate to guitar repertoire. Students will develop effective practice habits so they can progress independently. This course is open to all students, regardless of music background. Check with your child's counselor to see if this is offered at your school. .

Guitar 2 (6588)

Expanding on beginning skills learned in MS Guitar 1, students will learn to create, perform, and respond to guitar music in a variety of styles/genres. Students will continue to learn and develop beginning guitar skills including power chords; major and minor scales; and basic fingerpicking, strumming, and picking technique. They will study cultural, historical, personal, and social context as they relate to guitar repertoire. Students will develop effective practice habits so they can progress independently. Check with your child's counselor to see if this is offered at your school.

Choral Music

MS Chorus 1 (7893)

Students will create, perform, and respond to music in a variety of styles/genres. Students will develop the fundamentals of proper vocal technique and choral singing in relation to posture, breath control, tone, intonation, diction, blending, singing in harmony, music literacy, and sight-singing. **Students will primarily sing state level 2 music.** There likely will be a minimum of two school concerts and students are expected to participate in all performances. This course is open to all students, regardless of music background.

MS Chorus 2 (6695)

Students will create, perform, and respond to music in a variety of styles/genres. They will continue to develop the fundamentals of proper vocal technique and choral singing in relation to posture, breath control, tone, intonation, diction, blending, singing in harmony, music literacy, and sight-singing. **Students will primarily sing state level 2-3 music.** There likely will be a minimum of two school concerts as well as the opportunity to participate in other festivals/performances and students are expected to participate in all performances. An audition and/or a prerequisite of MS Chorus 1 may be required.

MS Chorus 3 (6696)

Students will create, perform, and respond to music in a variety of styles/genres. They will continue to develop proper vocal technique and choral singing in relation to posture, breath control, tone, intonation, diction, blending, singing in harmony, music literacy, and sight-singing in multiple keys and parts. **Students will primarily sing state level 3 music.** There likely will be

a minimum of two school concerts as well as the opportunity to participate in other festivals/performances and students are expected to participate in all performances. An audition and/or a prerequisite of MS Chorus 1 and/or 2 may be required.

Instrumental Music

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

This course is for students with no prior instrumental music experience. Students prepare for participation in performing ensembles and develop technical skills necessary to perform Grade 1 level music, a performance level established by the National Association for Music Education and not a reference to first grade. Basic instrumental skills are developed by performing a variety of music. Students are taught the elements of musical form, terms and symbols, tone production, instrument care and maintenance, and the importance of consistent practice habits. Cultural context of the music and its historical significance as they relate to performance is studied. Students may attend live performances and perform in public. They may be enrolled concurrently with 7892, 6845, 6815, and Middle School Band I (6880) or Orchestra I (6800) if necessary to run the course.

Middle School Band I (6880), Orchestra I (6800)

Students refine skills learned from their elementary Grade 4 and 5 instrumental music programs or in Middle School Beginning Band, String, or Wind and Percussion, and develop more advanced performance techniques. The development of technical skills necessary to perform Grade 1 to 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 attend live performances and perform in public.

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

Middle School Band II (6830), Orchestra II (6860)

Students develop and refine their technical skills in order to perform music at the Grade 2 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

MIDDLE SCHOOL COURSES

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 his/her own performance as well as the performance of others. This band or orchestra represents middle schools at public performances.

Prerequisite: *Attainment of outcomes for Middle School Band I or Orchestra I. Students may also audition to qualify for this course. This course may be taken for more than one year.*

Middle School Band III (6890), Orchestra III (6900)

Students distinguish between abstract and programmatic music and learn and discuss the social, intellectual, and historical influences on each. Students develop and refine their technical skills in order to perform music at the Grade 2 to Grade 3 Level of difficulty. 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 Middle School Band II or Orchestra II. Students also may audition to qualify for this course. They may take this course for multiple years.*

Theatre

Middle School Theatre 1 (6907)

Students in Grades 6, 7, or 8 with no previous theatre experience should begin at Level 1 in the curricular sequence. In this beginning-level course, students will explore how the theater is a space that both creates and challenges COMMUNITY. Theatre artists create an ensemble amongst themselves which functions as a safe space for risk-taking and creating. A sustained investigation of COMMUNITY in this intermediate-level course engages students to study a variety of dramatic works, participate in the creation and enhancement of ensemble, and question the role of theatre within their COMMUNITY.

Middle School Theatre 2 (6902)

In MS Art Theatre 2, Grade 7 students explore a multitude of identities on and off the stage. Personal, familial, and cultural identities can provide a launchpad for exploring self, character, conflict, and personal approaches to theatre. IDENTITY is commonly at the root of nearly all dramatic works and is a defining element in a theatre artists' approach to performance, design, production, and critique. A sustained focus on IDENTITY enables students to approach a variety of practices, games, dramatic works, traditions, and resources through a common lens, one that reinforces theatre's eternal focus on "the human experience."

Grade 8 students with no previous theatre experience may begin at Level 2 with permission of the theatre teacher.

Middle School Theatre 3 (6903)

Students in Grade 8 with prior theatre experience may continue with Level 3 in the curriculum sequence. In Middle School Theatre Level 3, students will have the opportunity to refine their craft while exploring ideas about CONFLICT. CONFLICT drives drama. When a character faces an obstacle, the tension created, the decisions made, and the consequences portrayed on stage engage the audience and artists in deeper reflection of the world around them. There are many types of conflicts that theatre artists face both on and off stage. The way conflicts are handled and developed reveal much about the agents involved. *This course is aligned with new frameworks for a level 3.*

Dance

Middle School Dance 1 (6027)

Students with no previous dance experience should begin at Level 1 in the dance sequence. This beginning course provides a survey of dance styles and elements.

Middle School Dance 2 (6007)

In this intermediate level course, Grade 7 students will continue to develop technique in a variety of dance styles and skilled application of dance elements. Students may audition to qualify for this level or receive permission from the dance teacher to enter this course. Students may take this course for more than one year.

Middle School Dance 3 (6092)

In this advanced level course, Grade 8 students continue to develop and refine dance concepts and skills as they build their repertoire. Students may audition in order to qualify for this course or receive permission from the dance teacher to enter this course. Students may take this course for more than one year. This course is aligned with new frameworks for a level 3.

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.

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM)

Coding ~ Computer Science ~ Engineering ~ Robotics ~ Technology Education

In order to prepare all students for demands of college, careers, and the rapidly changing workforce, MCPS will equip all middle school students to reach their potential through engaging, hands-on electives in Science, Technology, Engineering and Math (STEM). A priority for MCPS is ensuring that all students have experiences with and exposures to computer science and coding during the middle school years, while also developing the communication, problem-solving, computational, analytical, and innovative thinking needed to thrive in the 21st century. MCPS uses external curriculum from national organizations such as Code.org and Project Lead the Way to include units in coding, robotics and engineering design processes. A variety of skills are employed to spark student interest in STEM fields, in alignment with high school programs of study that prepare students for college and careers. Many courses are available in semester or quarterly modules. Please contact your school counselor for further information.

Grade 6: Coding and Robotic Design (7906)

- Game Development
- Design and Modeling
- Robotics
- Design and Engineering



MIDDLE SCHOOL COURSES

Grade 7: Principles of Information Technology, Cyber Security & Engineering (7904)

- Cyber SAFE
- Computer Literacy—Hardware and Software
- Cyber Safety and Software Applications
- Invention & Innovations
- Development and Use of Technology
- Engineering Design Process

Grade 8: See Electives Listed Above, available in semester courses:

- Computer Science Discoveries (2750/2751)
- Grade 8 Global Technology Systems (7899)
- Foundations of Computer Science TE A/B (2916/2917)
- Introduction to Engineering Design A/B TE (5152/5153)

High School Technology Education (TE) Courses

- Foundations of Computer Science A/B*
- Introduction to Engineering Design A/B*

*These courses fulfill the basic TE credit required for graduation.

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 will be used to communicate 2-D and 3-D designs. Students will acquire website-development skills and digital art concepts and use them to create a portfolio. 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: CYBERSAFETY

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

UNIT 4: INTRODUCTION TO PROGRAMMING

Computer Science Discoveries (2750/2751)

Computer Science Discoveries (CS Discoveries) is an introductory Code.org® computer science course that engages and empowers all students, regardless of background or prior experience, to solve problems, communicate, create projects and artifacts, and have fun using computer science. Students are introduced to coding languages appropriate for beginners, as well as more complex projects for students with more experience. Using App Lab, Game Lab environments, students will progress from blocks to typed coding and learn JavaScript. Students successful in this course will be prepared for the AP Computer Science Principles high school course.

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. This is done through a study of human computer interaction, problem solving, web design, programming, data analysis, and robotics.

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 Global 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 credit

This high school course is for Grade 8 students who have successfully completed Algebra I. 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
2019–2020 elective course options.**

MCPS NONDISCRIMINATION STATEMENT

Montgomery County Public Schools (MCPS) prohibits illegal discrimination based on race, ethnicity, color, ancestry, national origin, religion, immigration status, sex, gender, gender identity, gender expression, sexual orientation, family/parental status, marital status, age, physical or mental disability, poverty and socioeconomic status, language, or other legally or constitutionally protected attributes or affiliations. Discrimination undermines our community’s long-standing efforts to create, foster, and promote equity, inclusion, and acceptance for all. Some examples of discrimination include acts of hate, violence, insensitivity, harassment, bullying, disrespect, or retaliation. For more information, please review Montgomery County Board of Education Policy ACA, *Nondiscrimination, Equity, and Cultural Proficiency*. This Policy affirms the Board’s belief that each and every student matters, and in particular, that educational outcomes should never be predictable by any individual’s actual or perceived personal characteristics. The Policy also recognizes that equity requires proactive steps to identify and redress implicit biases, practices that have an unjustified disparate impact, and structural and institutional barriers that impede equality of educational or employment opportunities.

For inquiries or complaints about discrimination against MCPS staff *	For inquiries or complaints about discrimination against MCPS students *
Office of Employee Engagement and Labor Relations Department of Compliance and Investigations 850 Hungerford Drive, Room 55 Rockville, MD 20850 240-740-2888 OCOO-EmployeeEngagement@mcpsmd.org	Office of School Administration Compliance Unit 850 Hungerford Drive, Room 162 Rockville, MD 20850 240-740-3215 COS-SchoolAdministration@mcpsmd.org

**Inquiries, complaints, or requests for accommodations for students with disabilities also may be directed to the supervisor of the Office of Special Education, Resolution and Compliance Unit, at 240-740-3230. Inquiries regarding accommodations or modifications for staff may be directed to the Office of Employee Engagement and Labor Relations, Department of Compliance and Investigations, at 240-740-2888. In addition, discrimination complaints may be filed with other agencies, such as: the U.S. Equal Employment Opportunity Commission, Baltimore Field Office, City Crescent Bldg., 10 S. Howard Street, Third Floor, Baltimore, MD 21201, 1-800-669-4000, 1-800-669-6820 (TTY); or U.S. Department of Education, Office for Civil Rights, Lyndon Baines Johnson Dept. of Education Bldg., 400 Maryland Avenue, SW, Washington, DC 20202-1100, 1-800-421-3481, 1-800-877-8339 (TDD), OCR@ed.gov, or www2.ed.gov/about/offices/list/ocr/complaintintro.html.*

This document is available, upon request, in languages other than English and in an alternate format under the *Americans with Disabilities Act*, by contacting the MCPS Department of Public Information and Web Services at 240-740-2837, 1-800-735-2258 (Maryland Relay), or PIO@mcpsmd.org. Individuals who need sign language interpretation or cued speech transliteration may contact the MCPS Office of Interpreting Services at 240-740-1800, 301-637-2958 (VP) or MCPSInterpretingServices@mcpsmd.org. MCPS also provides equal access to the Boy/Girl Scouts and other designated youth groups.



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