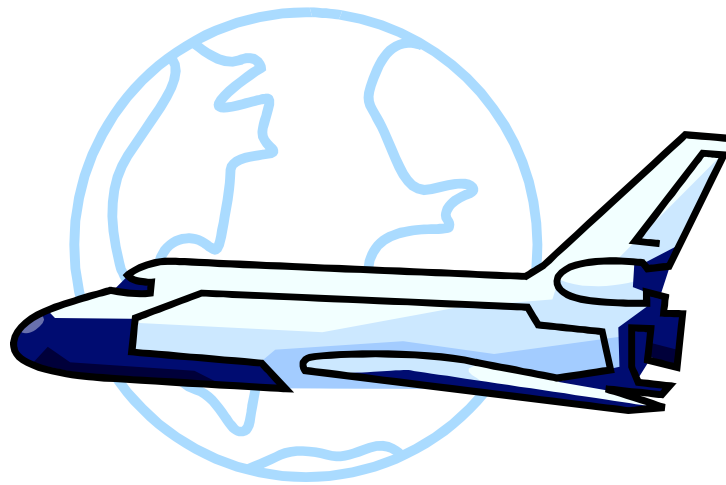


Parkland Magnet Middle School for Aerospace Technology
Course Bulletin
2009 - 2010

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Parkland Magnet Middle School for Aerospace Technology

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Benjamin OuYang, Principal

Dear Students, Parents and Guardians:

It is with great pleasure that I welcome you to Parkland Magnet Middle School for Aerospace Technology for your 6th, 7th or 8th grade year. The registration process for the 2009-2010 school year is underway. This course booklet provides you with descriptions of the courses offered at Parkland, both academic and elective. You are encouraged to review this booklet as you discuss course selections for next year as well as planning for the remaining middle school years.

Our program of studies is constructed around a rigorous magnet program designed to assist every student in increasing his/her level of academic achievement and beginning high school studies. This all-school magnet program focused on aerospace, robotic engineering and astronomy, allows all students to benefit from the infusion of rigorous math and science curricula into real world and out of this world applications.

The students at Parkland are taught by caring, highly skilled teachers who are committed to providing rigorous opportunities for all children and continuous improvement for themselves and their students. Parkland is a school where every student is given equal opportunity to excel. We believe that academic rigor is a necessary preparation for the knowledge-based economy and that middle school is the time to gain the skills and knowledge for high school, college, and beyond.

Sincerely,

Benjamin OuYang, Ph. D.
Principal

TABLE OF CONTENTS

GENERAL INFORMATION	5
Introduction.....	5
Program Goals	5
Parkland’s Unique Science Sequence.....	5
Team Organization.....	5
Registration Procedures	6
Scheduling Process/Course Availability.....	6
Changes to Course Requests.....	6
Course Fees/Student Fees	6
Counseling Services.....	6
Health Services	7
Linkages to Learning (LTL)	7
Media Center.....	7
Special Education Services.....	7
English for Speakers of Other Languages (ESOL).....	7
Multidisciplinary Education, Training and Support (METS).....	8
Gifted and Talented (GT).....	8
High School Credit for Middle School Courses	8
Maryland State Assessments (MSA)	8
Maryland High School Assessments (HSA).....	9
Student Service Learning Hours (SSL).....	9
Agenda Book	10
Outdoor Education	10
Extra Curricular and After School Activities.....	10
INSTRUCTIONAL PROGRAM PATHWAYS.....	11
6th GRADE COURSES.....	12
Course Descriptions – 6 th Grade Required Courses.....	12
ENGLISH	12
MATHEMATICS	12
SCIENCE.....	13
AEROSPACE	13
SOCIAL STUDIES.....	13
PHYSICAL EDUCATION/HEALTH.....	13
Course Descriptions – 6 th Grade Elective Courses	14
READING.....	14
FOREIGN LANGUAGE	14
AEROSPACE ELECTIVES.....	15
ART.....	15
COMPUTERS	15
MUSIC.....	15
7th GRADE COURSES.....	17
Course Descriptions – 7 th Grade Required Courses.....	17
ENGLISH	17
MATHEMATICS	17

SCIENCE.....	18
AEROSPACE.....	18
SOCIAL STUDIES.....	18
PHYSICAL EDUCATION/HEALTH.....	19
Course Descriptions – 7 th Grade Elective Courses.....	19
READING.....	19
FOREIGN LANGUAGE.....	19
AEROSPACE ELECTIVES.....	20
ART.....	21
COMPUTERS.....	21
MUSIC.....	21
8th GRADE COURSES.....	23
Course Descriptions – 8 th Grade Required Courses.....	23
ENGLISH.....	23
MATHEMATICS.....	23
SCIENCE.....	24
AEROSPACE.....	24
SOCIAL STUDIES.....	24
PHYSICAL EDUCATION/HEALTH.....	25
Course Descriptions – 8 th Grade Elective Courses.....	25
READING.....	25
FOREIGN LANGUAGE.....	25
AEROSPACE ELECTIVES.....	26
ART.....	27
COMPUTERS.....	28
MUSIC.....	28
6th Grade Course Selection Worksheet.....	29
7th Grade Course Selection Worksheet.....	30
8th Grade Course Selection Worksheet.....	31

GENERAL INFORMATION

Introduction

Parkland Magnet Middle School for Aerospace Technology offers students in Grades 6, 7, and 8 a rigorous academic program focused through advanced and applied mathematics, science, and technology. The program content is based on the goals and objectives of the MCPS curriculum, and is accelerated and compacted to allow all students an opportunity to complete a high school science course by the end of Grade 8.

School Mission

At Parkland, we believe that every student regardless of socioeconomic status, ethnicity, past history and academic background will have access to opportunities for success socially and academically in our unique whole-school magnet program. We will provide the support necessary for every student to succeed. We believe...

“Every Student, Whatever It Takes!”

Program Goals

The goals of Parkland Magnet Middle School for Aerospace Technology are for all students to:

- Successfully complete a compacted and enriched middle school science curriculum by the end of Grade 7.
- Successfully complete high school Honors Physics or Matter & Energy by the end of Grade 8.
 - Students choosing to take Physics in Grade 8 must complete Algebra I by the end of Grade 7
 - Honors Geometry in Grade 8 is a co-requisite of Physics.
- Successfully complete Algebra I by the end of Grade 8.
- Complete yearly milestones in the areas of technical writing, presentation, problem solving, and scientific and technological research.
- Engage rigorously in the process skills of science through real-world applications.
 - Develop and design independently a testable question that includes analyzing and developing a well-designed procedure complete with independent and dependent variables.
 - Collect, organize and display data in ways others can verify using appropriate instruments.
 - Analyze and summarize data to identify trends and form a logical argument about a cause and effect relationship or sequence of events.
- Demonstrate the ability to solve problems with technology using a systems approach, higher-level thinking skills, individual and collaborative ingenuity, and a variety of resources such as information, tools, and materials including choosing and using appropriate:
 - Computer skills in applications and research (e.g. Word, Excel, PowerPoint, Internet Databases)
 - Measurement skills in science, math and technology (e.g. distance, mass, time)
 - Tools of science and technology to solve problems (e.g. graphing calculators, scientific laboratory equipment)
- Consistently produce quality pieces of technical writing.
 - Conduct in-depth scientific research
 - Prepare and write a research paper that incorporates an abstract
 - Publish the writing piece as an authentic text
 - Use factual evidence to formulate and support a conclusion
- Become independent, responsible self-learners who are self-advocates that seek out support when needed.

Parkland’s Unique Science Sequence

A primary goal of the Middle School Magnet Consortium is to increase student capacity for higher-level instruction in middle school and for advanced study in high school. At Parkland, we offer students an accelerated curriculum in the sciences in which the MCPS middle school science curriculum has been compacted into four courses over the Grade 6 and Grade 7 years. These courses include Science 6/7, Science 7/8, Applied Aerospace Investigations 6 and Applied Aerospace Investigations 7. This compaction and acceleration allows students to enroll in a high school level science course for credit in Grade 8; Honors Physics or Matter & Energy.

Team Organization

Parkland is organized using a grade level team structure. Students are teamed among core subject area teachers. Team teachers meet regularly to plan for instruction and build consistency in the program. The team approach

allows teachers to work with students to build a strong sense of community and to foster long-term student-teacher relationships.

Registration Procedures

Use this program book as a guide to courses, programs, services and activities available at Parkland. Read this document thoroughly before making your course selections. Students and parents/guardians should work together to make course selections that best suit the interests and abilities of the student. You may use the course selection worksheet in the back of the course bulletin to help you and your student through this process.

Registration cards will be distributed by the counselors to students during registration orientation. A due date for return of the registration cards to the students' guidance counselor will be noted on the card. It is very important that all registration cards are returned by the due date for students to receive their course requests.

Scheduling Process/Course Availability

Following the return of the registration cards, Parkland staff will input the course requests into the scheduling database. All courses are subject to cancellation if there is not sufficient student demand, staffing, or pending budget approval. Courses with insufficient enrollment may not be offered. The Parkland staff will work diligently to create a schedule for each student that meets their academic needs and interests.

Changes to Course Requests

A copy of the students' course requests will be sent home to students and parents/guardians after the initial registration period has occurred. At this time, if a student requests a change or correction to their current course requests, they may return the form with indicated changes and a parent signature to the Counseling Services Office. Students may not get their first choice of elective courses due to class enrollment and staff availability. Every effort will be made to provide the student with a comparable course choice.

After the 2009-2010 school year begins, schedule changes will only be made on an as needed basis such as an error in scheduling. Schedule changes are limited due to class enrollment and class availability.

Course Fees/Student Fees

Some elective courses have a lab/course fee. This fee is used to purchase consumable materials and supplies used and kept by students. Courses with course fees are noted in the course description section of the course bulletin.

Students will also be charged a replacement fee of \$5 if their hall locker combination lock is lost. If these fees present a financial hardship, scholarships and programs are available to provide assistance. Please contact the Counseling Services Department for more information at 301-438-5800.

Counseling Services

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

When working with a counselor, students may:

- Discuss concerns about life in and out of school
- Explore strengths, weaknesses, interests and aptitudes
- Reflect upon current responsibilities and future goals
- Develop strategies to become effective personally, socially, and academically
- Plan educational programs
- Address other pertinent issues

2009-2010 Counseling Staff

Robin Greene – Resource Counselor (ESOL, RELL students)

Barbara Bauman – 7th Grade Counselor

Nichole Hardy – 6th Grade Counselor

Ron Schwartz – 8th Grade Counselor

Lindsey Hill – Counseling Services Secretary

Health Services

School Health Services' school community health nurses (registered nurses) and school health room aides (certified nursing assistants), who work under the clinical oversight of a nurse, provide school health services to students during school hours. Services include assessing the health needs of students, providing first aid and emergency care to sick and injured students, monitoring immunization compliance, administering medications and treatments to students who have physician's orders, maintaining student health records, providing crisis intervention, health counseling, health education-promotion, nurse case-management and referral.

Linkages to Learning (LTL)

LTL is a comprehensive school-based health and human services program that is based on a holistic approach to prevention and early intervention for students and families. LTL assists families and students by providing or referring services to help children in school, at home and in the community based on the resources and needs within the community. Participation in LTL services is based on referrals through the school guidance office. LTL services include:

- Individual, group, and family therapy
- Social skills and behavior management groups for students
- Parenting workshops and parent support groups
- Information, referral, and follow-up for health care, food, clothing, housing, financial and legal assistance
- Eligibility assistance for local, state, and federal programs
- Health education and nutrition classes
- Adult education classes
- Teacher consultation and in-service training for school staff
- Education supports to promote success for every student

Media Center

The library media program provides access to ideas, information, and learning opportunities that enable each student to function effectively in an information-based society. Media center experiences are designed to teach literacy skills, media production, and literature appreciation using strategies that meet the needs of a diverse student population. Resources available throughout the media center include books, periodicals, reference materials, and electronic resources. The media specialist works collaboratively with the classroom teachers in order to support the curricular goals and desired outcomes of each lesson.

Special Education Services

Students with disabilities have varied Individualized Education Plans (IEP) that provide specialized instruction to address their academic needs. General and special education teachers collaborate to ensure students have meaningful opportunities to access the general curriculum. Instruction is designed to incorporate strategies that will enable students to make reasonable progress on their IEP goals and manage the rigor of content across all subject areas. Parkland follows the instructional model of full inclusion, meaning students receiving special education services are enrolled in general education courses with additional instructional support included in the classroom. A continuum of services is offered. Students with more intensive needs will receive curricular instruction in English and/or math in a small class of special education students taught by a special educator.

English for Speakers of Other Languages (ESOL)

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

Multidisciplinary Education, Training and Support (METS)

Students with interrupted or no previous formal education follow a specialized METS curriculum, which includes math, reading, World Studies and ESOL instruction. Students must meet specific entry criteria and are placed in one of two different levels according to English language proficiency.

Gifted and Talented (GT)

The GT program provides opportunities for academically talented and motivated students to accelerate and enhance their learning experiences through exposure to advanced content, differentiated instruction, and ongoing assessment. GT courses follow the approved grade level curriculum using instructional and assessment strategies that cover course objectives in more depth and require greater use of abstract and higher level thinking skills. In addition, students are expected to work independently and undertake rigorous research and writing projects. Parkland provides grade 6, 7 and 8 GT instruction in four areas: English, mathematics, social studies, and science. We urge all students who have the capability, motivation or potential to accept the challenge of gifted and talented instruction and to take advantage of these opportunities. Students may be nominated for GT courses by teachers, parents, or by self-selection. The following criteria are considered in determining a student's placement in GT classes:

- Mastery of course prerequisites (Grade of A, B, or C)
- Standardized test scores, as appropriate
- Willingness to complete challenging assignments
- Previous identification as gifted and talented
- Teacher/counselor recommendations
- Parent/guardian recommendations
- Other appropriate measures such as work samples and portfolios

GT students are expected to maintain an 'A' or 'B' average in GT classes. Students who receive a grade of 'C' or lower at the end of the first marking period will be counseled about ways to improve their performance. Students who receive a grade of 'D' or 'E' over two consecutive marking periods will be considered for removal from those GT classes.

High School Credit for Middle School Courses

The Maryland State Department of Education allows students to earn high school credit for high school courses taken in middle school. For students in grades 6-8 who successfully complete a high school course in middle school and pass the final exam, credit is entered into the student's credit history. The credit and grade are recorded on a student's transcript during the first year of high school. No opportunity to remove the credit or grade from history is provided; however, students may opt to retake a high school course taken in middle school and receive the higher grade. The course will appear only once on the transcript.

In order to receive the high school credit, students must fulfill ALL of the following requirements:

- Successfully pass both semesters of the course while in middle school
- Pass the countywide semester B final examination
- Take and pass the state High School Assessment (Algebra I only). The student's score becomes a permanent part of his/her record.

Additional information about high school courses:

- As in high school, semester final exams count as 25% of the semester grade.
- Students who fail to demonstrate mastery of the course concepts will repeat the course the following year.

High school credit courses offered at Parkland include Algebra 1, Honors Geometry, Algebra 2, Honors Physics, Matter & Energy, Advanced English 8, Chinese 1A, 1B, 2A/B, French 1A/B, 2A/B, 3A/B, and Spanish 1A/B, 2A/B, 3A/B and Introduction to Engineering Design.

Maryland State Assessments (MSA)

In accordance with the federal *No Child Left Behind Act*, the State of Maryland has developed statewide assessments to track the progress of all children, grades 3 through 8 and 10, in reading (administered annually), mathematics

(administered annually), and science (administered once in elementary school, once in middle school and once in high school), and to guide their future educational program. These tests are administered each year in March to ensure that test results will be reported by the end of the current school year. The Science MSA is administered to all grade eight students in addition to the current reading and math assessments.

What does this data tell us? It shows us student academic progress as a whole school and within student sub-groups as well as how each individual student is progressing.

What is the goal? It is expected that all children reach reading, mathematics, and science proficiency by the year 2014.

What is MCPS, as a whole system, and Parkland, as an individual school, doing to stay aligned and focused?

MCPS is implementing the new curricular structure that is designed to hold students to standards with consistency across the State of Maryland. These indicators are designed to answer the following question: “*What do we want students to know and be able to do?*” The consistency allows students to demonstrate mastery of content and process, in addition to providing a method for comparison to their peers.

Maryland High School Assessments (HSA)

In addition to the Maryland School Assessments (administered from grades 3 through 8) are the Maryland High School Assessments which are end of course assessments designed to indicate student mastery of specific content. Currently, students will take one high school assessment at the conclusion of each of the following courses: Algebra/Data Analysis, English 10, Government and Biology. **Beginning with the class of 2009, students must take AND PASS each of the four tests to receive their high school diploma.**

In preparation for these tests, the students at Parkland are exposed to the structure and function of the tests through every day instruction and implementation of the county’s curricula. The increasing emphasis on reading and writing in all content areas will support student success on these assessments.

For more information related to these assessments, please visit the following websites:

Maryland School Improvement <http://mdk12.org>

MCPS High School Assessment <http://mcps.k12.md.us/curriculum/hsi>

MCPS Testing Information

<http://www.mcps.k12.md.us/departments/accountability/testing/abouttesting.shtm>

<http://mcps.k12.md.us/info/assessments.shtm>

Student Service Learning Hours (SSL)

Student Service Learning helps students learn and develop through active participation in thoughtful, organized service that meets a recognized community need. **Students are required to complete 75 SSL hours to earn a Maryland high school diploma.** Students can earn 10 hours per year while in middle school for a total of 30 hours by successfully completing the service-learning components of designated courses. These courses include Science 6/7 in Grade 6, English in Grade 7, and U.S. History in Grade 8. Teachers will provide information about the service learning projects available in their courses. The remaining required 45 SSL hours may be earned throughout their middle and high school career by involvement in approved, unpaid activities within the school and community. Students who accrue more than 260 hours receive an MCPS Certificate of Meritorious Service. Some of the activities that students may participate in are: environmental projects, neighborhood clean-up activities, mentoring or tutoring projects and senior citizen programs. Activities must be performed with an approved organization. A list of approved organizations is available on the following website: www.mcpsssl.org

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

1. For an activity not on the approved list, the Special Activity Application Form (MCPS Form 560-50) must be completed and approved **prior** to community service being performed.
2. The Verification Form (MCPS Form 560-51) must be filled out completely, with particular attention given to the Student Reflection statement. The deadlines for turning in this form are as follows:

Last Friday before Sept 30 – for service performed during the summer
Friday before the 1st day of exams – for service performed in Semester 1
Friday before the 1st day of exams – for service performed in Semester 2

Agenda Book

All students will be given an agenda book at the start of the school year. The agenda book provides important information to students including the discipline and attendance policies. In addition to providing information, the book is used for students to record assignments, to chart long-term assignments and for hall passes.

Outdoor Education

Sixth graders at Parkland participate in the residential outdoor education program. Students are accompanied by their teachers and other school staff who provide instruction and supervision during their stay. An outdoor education teacher, who has already provided planning assistance, will be on-site for orientation, program coordination, and to provide direct instruction to students. While in residence, students learn about various aspects of the environment as they participate in activities that cannot be carried out at Parkland. These activities provide opportunities to put into practice the thinking processes, skills, and strategies developed in the classroom. By sharing this twenty-four hour a day experience with fellow sixth graders, teachers, and parent volunteers, each student gains a better understanding of others. There is a per student fee that covers all of the student's expenses. Scholarships and financial assistance is available.

Extra Curricular and After School Activities

At Parkland there are a variety of after school activities to choose from. We hope all students will participate in the after school activities that they enjoy to extend their learning and mastery of the subject. A one-time, required annual fee allows students to participate in as many after school activities as they like throughout the school year.

Activities for all grade levels include but are not limited to:

Astronomy Club	Homework Club	Newspaper Club
Basketball Shoot-out	Jazz Band	Radio Controlled Airplane Club
Book Club	Literary Magazine	Robotic Engineers
Builders Club	MATHCOUNTS	Student Government
Civil Air Patrol	Math Team	Association (SGA)
Destination Imagination (DI)	MESA (Math, Engineering, Science Achievement)	Track & Field Challenge
Drama Club		

Interscholastic Athletics (7th & 8th Grade Only):

Fall – Boys and Girls Softball
Boys and Girls Cross Country
Winter – Boys and Girls Basketball
Spring – Boys and Girls Soccer

INSTRUCTIONAL PROGRAM PATHWAYS

* indicates student may earn high school credit

Grade 6 (09-10)	Grade 7 (09-10)	Grade 8 (09-10)
<p>Required Courses: GT English 6 or English 6 or ESOL 1, 2 or 3 Mathematics (6, 7, IM, or Alg. 1*) GT World Studies 6 Physical Education/Health 6</p>	<p>Required Courses: Advanced English 7 or English 7 or ESOL 1, 2, or 3 Mathematics (7, IM, Alg. 1*, or Honors Geometry*) Advanced World Studies 7 Physical Education/Health 7</p>	<p>Required Courses: Advanced English* or English 8 or ESOL 1, 2, or 3 Mathematics (Alg 1*, Honors Geometry*, or Alg. 2*) Advanced U.S. History 8 or U.S. History 8 Physical Education/Health 8</p>
-AND-	-AND-	-AND-
<p>GT Science 6/7 or Science 6/7</p>	<p>GT Science 7/8 or Science 7/8</p>	<p>Physics* (prerequisite/co-requisite - Honors Geometry) or Matter and Energy* (co-requisite Algebra 1)</p>
-AND-	-AND-	-AND-
<p>Applied Aerospace Investigations 6</p>	<p>Applied Aerospace Investigations 7</p>	<p>Aerospace Design & Technology</p>
-AND-	-AND-	-AND-
<p>GT Reading 6 or Reading 6</p>	<p>Reading 7</p>	<p>Reading 8</p>
-OR-	-OR-	-OR-
<p>Foreign Language* Chinese 1A French 1A/B Spanish 1A/B</p>	<p>Foreign Language* Chinese 1A or 1B French 1 A/B or 2A/B Spanish 1A/B or 2A/B</p>	<p>Foreign Language* Chinese 1B or 2A/B French 1 A/B , 2A/B, 3A/B Spanish 1A/B, 2A/B, or 3A/B</p>
-AND-	-AND-	-AND-
<p style="text-align: center;">-AND- Elective Options:</p> <p>Option 1: Astronomy and Space Exploration (sem) & Introduction to Robotic Systems (sem)</p> <p>Option 2: Art 6 (sem) & Introduction to Computers (sem)</p> <p>Option 3: Beginning or Intermediate Band (year)</p> <p>Option 4: Beginning or Intermediate Orchestra (year)</p>	<p style="text-align: center;">-AND- Elective Options:</p> <p>Option 1: Astronomy and Space Exploration (sem) & Introduction to Robotic Systems (sem)</p> <p>Option 2: Applied Robotic Engineering (sem) & Principles of Flight (sem)</p> <p>Option 3: Applied Robotic Engineering (sem) & Research in Astronomy (sem)</p> <p>Option 4: Art 7 (sem) & Computer Applications (sem)</p> <p>Option 5: Guitar 7 (year)</p> <p>Option 6: Beginning or Intermediate or Advanced Band (year)</p> <p>Option 7: Beginning or Intermediate or Advanced Orchestra(year)</p>	<p style="text-align: center;">-AND- Elective Options:</p> <p>Option 1: Applied Robotic Programming (sem) & Research in Astronomy (sem)</p> <p>Option 2: Computer Art (sem) & Principles of Flight (sem)</p> <p>Option 3: Introduction to Engineering Design* (year)</p> <p>Option 4: Computer Applications (sem) & Specialty Art A or B (sem)</p> <p>Option 5: Guitar 8 (year)</p> <p>Option 6: Intermediate or Advanced Band (year)</p> <p>Option 7: Intermediate or Advanced Orchestra (year)</p>

6th Grade Courses

Course Descriptions – 6th Grade Required Courses

ENGLISH

English 6

Students in English 6 examine language and literature in the context of four thematic units: Foundations, Adventures, Challenges & Barriers and Choices. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. Anchor texts include multicultural, contemporary, and classic titles. The common tasks focus primarily on the writing process, highlighting the informative, persuasive, narrative and procedural intents. They include the use of information, word processing, and presentation technology to address a variety of language skills. Rigor and challenge are essential components of the instructional approach to English 6. Students have many opportunities to present their work orally and through the medium of technology. Instruction in reading and writing strategies, grammar and vocabulary is embedded in every unit. English 6 prepares students through activities integrated into each thematic unit for formal, county, state, and national assessments.

MATHEMATICS

The comprehensive mathematics program sequence for grades 6-12 can be found in the Middle School Program Brochure. This document can be found online at www.mcps.k12.md.us/curriculum/middleschool/brochure.shtm.

Math 6

This course extends the students' understanding of numbers and computation to include fractions, decimals, and percents. All concepts and skills are presented in the context of problem solving that requires the use of reasoning and communication. Areas of focus include: data representation and analysis using frequency tables and circle graphs, customary and metric measurements, geometric relationships and transformations, algebraic patterns and relationships, and probability. Students who successfully complete MCPS Mathematics Course 6 will go on to MCPS Mathematics Course 7 or Investigations into Mathematics the following year.

Math 7

This course extends the students' understanding of numbers and computation to include integers and proportional reasoning. All concepts and skills are presented in the context of problem solving that requires the use of reasoning and communication. Areas of focus include functional relationships, arithmetic and geometric sequences, geometric precision, and data analysis and representation using box-and-whisker plots and scatter plots. This course is for students who have completed the kindergarten to Grade 5 mathematics curriculum as well as the indicators in the MCPS Mathematics Course 6. Students who successfully complete the MCPS Mathematics Course 7 will go on to Investigations into Mathematics or Algebra 1 the following year.

Investigations into Mathematics

An enriched course for mathematically accelerated students who have successfully completed the Kindergarten to Grade 5 mathematics curriculum as well as the indicators of Middle School Mathematics Course 6 and the majority of the indicators of Middle School Mathematics Course 7 by the end of Grade 5. Students successful in this course will take Algebra 1 the following year. This course is designed for students with exceptional talent in mathematics. The units of study include patterns and set theory, relations and finite operational systems, algebra foundations, real number systems, data analysis, language of algebra, functions and graphs, and investigations of three-dimensional geometry. One of the goals of this class is to provide a theoretical view of the world to students while preparing them for Algebra 1. Students learn both concrete and abstract mathematical topics while improving their communication, thinking, and reasoning skills. Students who successfully complete Investigations into Mathematics will go on to Algebra 1 the following year.

Algebra 1 (1.0 high school math credit)

Algebra 1 is a course for students who have successfully completed the indicators of Middle School Mathematics Course 6 and Course 7. Algebra 1 examines the basic structure of real numbers, algebraic expressions, and functions. The topics studied are linear equations, inequalities, functions and systems, quadratic equations and

functions, polynomial expressions, data analysis, probability, and properties of functions. Mathematical modeling of real-life problems and problem solving are major themes of the course. A graphing calculator is used throughout this course. A county-wide exam is administered at the end of each semester and the High School Assessment (HSA) is administered in the spring. A passing score on the Algebra HSA is required for graduation. Students who successfully complete Algebra 1 will go on to Honors Geometry the following year. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

SCIENCE

Science 6/7

The MCPS middle school science program allows students to investigate both the concepts and process skills of science. Topics in earth science, biology, chemistry, and physics are interconnected to demonstrate to students the relationships that exist among 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. Units studied in science 6/7 include ecosystems and the Chesapeake Bay, diversity and adaptation, cells, and Earth's structure.

The Parkland Magnet School for Aerospace Technology science program maintains an investigative and multidisciplinary approach to science, but emphasizes magnet related topics in separate courses for in-depth study. Applied Aerospace Investigations 6 and Applied Aerospace Investigations 7 are required courses that are complimentary to the Science 6/7 and 7/8 courses. Students will learn and apply specific knowledge and skills that prepare them for the high school level Physics and Matter & Energy courses in grade 8.

Note: Dissection is one of the many instructional methods that may be used in middle school science. Students may request one of the teacher's alternatives to dissection in these classes. Alternatives may include such materials as videotapes, charts, diagrams, and textbook overlays.

AEROSPACE

Applied Aerospace Investigations 6 (AAI6)

Required for all grade 6 students, the Applied Aerospace Investigations 6 course is part of the Parkland program to prepare students for a high school level science course in grade 8. Applied Aerospace Investigations 6 is based on the concepts and indicators of three MCPS science units; astronomy, Earth's history, motion and forces. A focus of the course is for students to work and think like scientists and engineers. Interdisciplinary connections that reinforce and support content mastery in English, mathematics, science, and social studies will be integrated throughout the course. Students will learn and apply specific knowledge and skills that prepare them for the high school level physics and matter and energy courses.

SOCIAL STUDIES

World Studies 6

The social studies program in middle school builds chronological and thematic understanding of world and United States history, while also developing the content and concepts of geography, economics, political systems, and culture. Each social studies unit is organized around a historical strand and a social studies content topic. This mix of modern content and the lesson of history provide the background knowledge and thinking skills to prepare students for high school instruction and the duties of a citizen. In Grade 6 and Grade 7, the focus of study is on ancient world history and culture from Asia, Africa, Europe, and Latin America. The Grade 6 curriculum consists of four thematic units: Patterns of Settlement in the Ancient and Modern Worlds, Citizenship & Governance in Classical and Modern Times, Impact of Economics in Ancient and Modern China, and Cultural Systems: The First Millennium and Today.

PHYSICAL EDUCATION/HEALTH

Physical Education 6

Middle school students participate in a daily program of physical education that includes activities designed to challenge them to cooperate and compete while practicing teamwork, sports etiquette, cooperation, decision making, leadership, and communication. By the end of Grade 6, students should be able to do the following:

- Demonstrate basic strategic concepts and psychomotor skills in team and individual activities.
- Demonstrate competency in rhythmic and creative movement activities.
- Work as a member of a group to accomplish a common goal.
- Display positive behavior and apply appropriate decision-making skills.
- Participate in a variety of activities that can be applied to leisure activities throughout life.
- Set realistic fitness goals.

Health Education 6

Today's students are growing up in a world filled with hazards that were either unknown or largely ignored only a few years ago. Health education instruction in middle school supports what students learn at home about good health and safety practices by providing accurate information appropriate for their age level. The program is designed to help students develop personal and social skills and positive attitudes about health that will help guide them through their formative years to adulthood. Comprehensive health education includes the following six units: mental health; tobacco, alcohol, and other drugs; nutrition and fitness; safety and injury prevention; family life and human sexuality; and disease prevention and control. Students in Grade 6 receive nine weeks of health education and the two focus topics are tobacco, alcohol and other drugs and nutrition and fitness. Special emphasis on the prevention of tobacco, alcohol, and other drug use is included in Grade 6 through Project TNT (Toward No Tobacco). Parents of Grade 6 students will receive information about the family life and human sexuality unit of instruction prior to the start of classroom instruction. Parents who object to the content of the instruction may request that their child 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 HIV prevention.

Course Descriptions – 6th Grade Elective Courses

READING

Reading 6

The Reading 6 curriculum focuses on building, refining, and extending reading strategies learned in elementary school. Students learn to personalize effective reading strategies for understanding while they read increasingly more complex and challenging middle school texts. Comprehension is a key focus, including reading beyond the literal level. Students apply strategies to expository materials such as science and social studies textbooks, newspaper articles, and biographical essays.

FOREIGN LANGUAGE

The goal of the Parkland Magnet Middle School foreign language program is to educate students in a language and culture in order to make them knowledgeable and active members of a global society. Students will learn to use foreign languages for meaningful communication in both written and spoken form. The foreign language program emphasizes language as it is used in real life situations that they are likely to encounter. Through foreign language study, students develop sensitivity to the cultural and linguistic heritage of other groups and become prepared to participate in a society characterized by linguistic and cultural diversity. Middle school students that are not enrolled in reading are encouraged to enroll in a foreign language course. The languages available at Parkland are Mandarin Chinese, French, Spanish, and Spanish for Spanish Speakers. **All foreign language courses are high-school level courses that include a county-wide exam at the end of each semester.** Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

Students interested in the International Baccalaureate Program at Richard Montgomery High School must be enrolled or have completed Level 1 or higher of Chinese, French or Spanish by Grade 8. Native speakers of Chinese, French or Spanish may also be eligible without the Level 1 foreign language requirement.

Chinese 1A (full year) (0.5 high school foreign language credit)

Students engage in introductory conversations and follow simple classroom instructions. Emphasis is on learning the Chinese Pinyin System, vocabulary development, simple grammatical structures, and the basic culture of the Chinese people.

French 1A/B or Spanish 1 A/B (full year) (1.0 high school foreign language credit)

Students will be introduced to basic vocabulary and structures in the language through developing communication skills to discuss the topics of greetings, personal information, pastimes, school, food, family, travel, community and clothing. Cultural perspectives will be introduced.

6th Grade Elective Courses Options. The options available are:

Option 1 – Astronomy and Space Exploration (sem) & Introduction to Robotic Systems (sem)

Option 2 – Art 6 (sem) & Introduction to Computers (sem)

Option 3 – Beginning or Intermediate Band (year)

Option 4 – Beginning or Intermediate Orchestra (year)

AEROSPACE ELECTIVES

Astronomy & Space Exploration (semester) (course fee - \$5)

This investigative, introductory course focuses on our solar system and planetary astronomy. Topics of study include the Earth, Moon, Sun, planets, asteroids, comets, stars, and galaxies. The course is based on student observations made with the naked eye and scientific equipment. Scientific literature will be utilized to determine whether or not a variety of hypotheses can be confirmed. Students will have opportunities to use software and the Internet to explore our universe. Experiences with observatories and planetaria may be included.

Introduction to Robotic Systems (semester) (course fee - \$5)

Introduction to Robotic Systems is an interactive, hands-on semester course that explores technology systems using robotics as a framework. The class examines the basics of structural, fluid and electrical systems and applies this knowledge to design and construct a working model of a 3-axis hydraulic robot. Principles of problem solving are introduced in the design phase and revisited during an introduction to the programming lab at the end of the semester. Machine tool use and safety is an integral part of this course.

ART

Art – Grade 6 (semester) (course fee - \$5)

This course develops students' knowledge of line, color, shape, form, and texture during the creation of artworks using a variety of art materials. Students are exposed to art from other cultures and historical periods.

Students will begin to understand how artists use the elements of art and principles of design to design and create drawings, paintings, sculpture and crafts. Students will create artwork in an extended group project based on the school's aerospace theme. Students are taught the safe and proper use of art tools, materials, and the art room.

COMPUTERS

Introduction to Computers – Grade 6 (semester)

Introduction to Computers provides students with active learning experiences related to all aspects of computer use. Students use prepared programs and technology-related resources to apply strategies for identifying and solving routine hardware and software problems that occur every day. This course focuses on using content-specific tools, software, and simulations to support learning and research. Course outcomes are based upon national and state technology standards.

MUSIC

Beginning Band – Grade 6 (full year)

The primary function of the music curriculum is to establish a foundation for a life long relationship with music. Within the curriculum, opportunities for both individual and group experiences occur when performing, creating and expressing musical concepts. Aesthetic values are developed with the application of specific criteria. Beginning band provides students the opportunity to begin their training on woodwind, brass, or percussion instruments. Participation in all concerts and performances is mandatory.

Beginning Orchestra – Grade 6 (full year)

This course stresses basic tonal production and establishes a foundation for the development of technical skills. Students perform in small groups and also solo in class to gain confidence. Scale and rhythmic studies combined with pitch identification, dynamics and tone color are developed. Public and in-school performances are mandatory.

Beginning orchestra provides students the opportunity to begin their training on string instruments including violin, viola, cello, or bass. Participation in all concerts and performances is mandatory.

Intermediate Band/Orchestra - Grade 6 (full year)

Students refine skills and develop more advanced performance techniques. The development of technical skills necessary to perform Grade 2 level music is stressed. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. The MCPS middle school intermediate band/orchestra may be organized into several small groups of different instrument types, with provisions for combining the groups for public performance. Students 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 affecting the creation of the music they are studying. They begin to develop aesthetic criteria for measuring the quality of instrumental performance. Students may be able to attend live performances. Participation in all concerts and performances is mandatory.

Prerequisite: Attainment of outcomes for Beginning Orchestra or Beginning Band.

Note: It is expected that students will rent or purchase an instrument to use in any instrumental music class. Students who qualify may contact the teacher to borrow an instrument. However, only a limited number of instruments are available in the school.

7th Grade Courses

Course Descriptions – 7th Grade Required Courses

ENGLISH

English 7

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 students' experiences in English 6 but involves greater rigor and challenge in its approach to the study of English. Students in English 7 examine language and literature in the context of the challenges people face. The themes studied are Identity, A Sense of Place, Voices from the Past, and Creativity. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. Anchor texts include multicultural, contemporary, and classic titles. The common tasks focus primarily on the writing process, highlighting the informative and persuasive intents, and they include the use of information, word processing, and presentation technology to address a variety of language skills. Instruction in reading and writing strategies, grammar and vocabulary is embedded in every unit. English 7 uses activities integrated into each thematic unit to prepare students for formal county, state, and national assessments.

Advanced English 7

This course is designed for able and motivated students with a lively interest in the power and versatility of language. In preparation for Advanced English in Grade 8 and advanced 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.

MATHEMATICS

The comprehensive mathematics program sequence for grades 6-12 can be found in the Middle School Program Brochure. This document can be found online at www.mcps.k12.md.us/curriculum/middleschool/brochure.shtm.

Math 7

This course extends the students' understanding of numbers and computation to include integers and proportional reasoning. All concepts and skills are presented in the context of problem solving that requires the use of reasoning and communication. Areas of focus include functional relationships, arithmetic and geometric sequences, geometric precision, and data analysis and representation using box-and-whisker plots and scatter plots. This course is for students who have completed the kindergarten to Grade 5 mathematics curriculum as well as the indicators in Middle School Mathematics Course 6.

Investigations into Mathematics

An enriched course for mathematically accelerated students who have successfully completed the Kindergarten to Grade 5 mathematics curriculum as well as the indicators of Middle School Mathematics Course 6 and the majority of the indicators of Middle School Mathematics Course 7 by the end of Grade 5. Students successful in this course will take Algebra 1 the following year. This course is designed for students with exceptional talent in mathematics. The units of study include patterns and set theory, relations and finite operational systems, algebra foundations, real number systems, data analysis, language of algebra, functions and graphs, and investigations of three-dimensional geometry. One of the goals of this class is to provide a theoretical view of the world to students while preparing them for Algebra 1. Students learn both concrete and abstract mathematical topics while improving their communication, thinking, and reasoning skills. Students who successfully complete Investigations into Mathematics will go on to Algebra 1 the following year.

Algebra 1 (1.0 high school math credit)

Algebra 1 is a course for students who have successfully completed the indicators of Middle School Mathematics Course 6 and Course 7 or Investigations into Mathematics. Algebra 1 examines the basic structure of real numbers, algebraic expressions, and functions. The topics studied are linear equations, inequalities, functions and systems,

quadratic equations and functions, polynomial expressions, data analysis, probability, and properties of functions. Mathematical modeling of real-life problems and problem solving are major themes of the course. A graphing calculator is used throughout this course. A county-wide exam is administered at the end of each semester and the High School Assessment (HSA) is administered in the spring. A passing score on the Algebra HSA is required for graduation. Students who successfully complete Algebra 1 will go on to Honors Geometry the following year. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

Honors Geometry (prerequisite – Algebra 1) (1.0 high school math credit)

Geometry is studied as a mathematical system through the deductive development of relationships in the plane and space. Students formalize their understanding of geometric concepts, including congruence and similarity, circle chords, secants and tangent segments, parallel and perpendicular lines, angle and side measures in polygons, proofs, logic, transformations, the Pythagorean Theorem, constructions, coordinate geometry, and surface area and volume of solids. A graphing calculator is used throughout this course. A county-wide exam is administered at the end of each semester. Students who successfully complete Honors Geometry will go on to Algebra 2 with Analysis the following year. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

SCIENCE

Science 7/8

The MCPS middle school science program allows students to investigate both the concepts and process skills of science. Topics in earth science, biology, chemistry, and physics are interconnected to demonstrate the relationships that exist among 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. Topics studied in science 7/8 include; structure and function of living organisms, heredity and chemistry.

The Parkland Magnet School for Aerospace Technology science program maintains an investigative and multidisciplinary approach to science, but emphasizes magnet related topics in separate courses for in-depth study. Applied Aerospace Investigations 6 and Applied Aerospace Investigations 7 are required courses that are complimentary to the Science 6/7 and 7/8 courses. Students will learn and apply specific knowledge and skills that prepare them for the high school level Physics and Matter & Energy courses in grade 8.

Note: Dissection is one of the many instructional methods that may be used in middle school science. Students may request one of the teacher's alternatives to dissection in these classes. Alternatives may include such materials as videotapes, charts, diagrams, and textbook overlays.

AEROSPACE

Applied Aerospace Investigations 7 (AAI 7)

Required for all grade 7 students, the Applied Aerospace Investigations 7 course is part of the Parkland program to prepare students for a high school level science course in grade 8. Applied Aerospace Investigations 7 is based on the concepts and indicators of three science units; atmospheric phenomenon, light and sound, energy: electricity and magnetism. A focus of the course is for students to work and think like scientists and engineers. Interdisciplinary connections that reinforce and support content mastery in English, mathematics, science, and social studies will be integrated throughout the course. Students will learn and apply specific knowledge and skills that prepare them for the high school level physics and matter and energy courses.

SOCIAL STUDIES

Advanced World Studies 7

This course extends the content and concepts contained in the four units of Grade 7 World Studies. Through the study of world civilizations and global interactions from 1000 CE to 1450 CE, students learn about political, economic, and social systems today. Analysis of primary source texts and visuals is a central method for learning about the past and the challenges of historical interpretation.

PHYSICAL EDUCATION/HEALTH

Physical Education 7

Middle school students participate in a daily program of physical education that includes activities designed to challenge them to cooperate and compete while practicing teamwork, sports etiquette, cooperation, decision making, leadership, followership, and communication. By the end of Grade 7, students should be able to do the following:

- Demonstrate beginning-level skills in team, individual, dual, dance, and personal development activities.
- Combine a basic knowledge of rules with strategies in individual, dual, and team play.
- Know the rules of safety and apply them in all activities.
- Assess his/her level of physical fitness and explore avenues to improve fitness.
- Demonstrate good sports etiquette, teamwork, and cooperation.
- Enhance leadership and followership skills.
- Continue to display positive behavior and apply appropriate decision-making skills.
- Continue to set realistic personal fitness goals.

Health Education 7

Today's students are growing up in a world filled with hazards that were either unknown or largely ignored only a few years ago. Health education instruction in middle school supports what students learn at home about good health and safety practices by providing accurate information appropriate for their age level. The program is designed to help students develop personal and social skills and positive attitudes about health that will help guide them through their formative years to adulthood. Comprehensive health education includes the following six units: mental health; tobacco, alcohol, and other drugs; nutrition and fitness; safety and injury prevention; family life and human sexuality; and disease prevention and control. Students in Grade 7 receive nine weeks of health education and the two focus topics are tobacco, alcohol and other drugs, and nutrition and fitness. Special emphasis on the prevention of tobacco, alcohol, and other drug use is included in Grade 7 through Project ALERT. Also, students complete a unit on Basic First Aid and may receive certification from the American Red Cross. Parents of Grade 7 students will receive information about the family life and human sexuality unit of instruction prior to the start of classroom instruction. Parents who object to the content of the instruction may request that their child 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 HIV prevention.

Course Descriptions – 7th Grade Elective Courses

READING

Reading 7

The Reading 7 curriculum extends the reading strategies framed in previous reading courses. This curriculum is designed for struggling readers who have a foundation in decoding skills and experience difficulty comprehending grade-level material. The goal of this course is to build reading comprehension of expository texts that students will encounter in secondary content classes, including periodicals, trade books, textbooks, and reference materials. Students learn research-based reading strategies and apply them to the content texts of science, social studies, English, and mathematics. During the year of study, students work with increasingly difficult materials as they become more independent and efficient readers.

FOREIGN LANGUAGE

The goal of the Parkland Magnet Middle School foreign language program is to educate students in a language and culture in order to make them knowledgeable and active members of a global society. Students will learn to use foreign languages for meaningful communication in both written and spoken form. The foreign language program emphasizes language as it is used in real life situations that they are likely to encounter. Through foreign language study, students develop sensitivity to the cultural and linguistic heritage of other groups and become prepared to participate in a society characterized by linguistic and cultural diversity. Middle school students that are not enrolled in reading are encouraged to enroll in a foreign language course. The languages available at Parkland are Mandarin Chinese, French, and Spanish. **All foreign language courses are high-school level courses that include a county-wide exam at the end of each semester.** Successful completion includes:

- Successfully pass both semesters of the course

- Pass the countywide semester B final examination

Students interested in the International Baccalaureate Program at Richard Montgomery High School must be enrolled or have completed Level 1 or higher of Chinese, French or Spanish by Grade 8. Native speakers of Chinese, French or Spanish may also be eligible without the Level 1 foreign language requirement.

Chinese 1A (full year) (0.5 high school foreign language credit)

Students engage in introductory conversations and follow simple classroom instructions. Emphasis is on learning the Chinese Pinyin System, vocabulary development, simple grammatical structures, and the basic culture of the Chinese people.

Chinese 1B (full year) (Prerequisite – successful completion of Chinese 1A) (0.5 high school foreign language credit)

Students begin to learn to communicate orally and in written form about their personal life. Emphasis is on vocabulary development, simple grammatical structures, and the basic culture of the Chinese people. Topics include family, daily routine, and food preferences.

French 1A/B or Spanish 1 A/B (full year) (1.0 high school foreign language credit)

Students will be introduced to basic vocabulary and structures in the language through developing communication skills to discuss the topics of greetings, personal information, pastimes, school, food, family, travel, community and clothing. Cultural perspectives will be introduced.

French 2A/B or Spanish 2A/B (full year) (1.0 high school foreign language credit)

Students will continue to develop communication skills in the language using more complex vocabulary and structures. Students will compare their own lives to the lives of people in the target language cultures. Authentic texts will be introduced. Students will be expected to communicate primarily in the target language.

7th Grade Elective Courses Options. The options available are:

- Option 1** – Astronomy and Space Exploration (sem) & Introduction to Robotic Systems (sem)
- Option 2** – Applied Robotic Engineering (sem) & Principles of Flight (sem)
- Option 3** – Applied Robotic Engineering (sem) & Research in Astronomy (sem)
- Option 4** – Art 7 (sem) & Computer Applications (sem)
- Option 5** – Guitar 7 (year)
- Option 6** – Beginning or Intermediate or Advanced Band (year)
- Option 7** – Beginning or Intermediate or Advanced Orchestra (year)

AEROSPACE ELECTIVES

Astronomy & Space Exploration (semester) (course fee - \$5)

This investigative, introductory course focuses on our solar system and planetary astronomy. Topics of study include the Earth, Moon, Sun, planets, asteroids, comets, stars, and galaxies. The course is based on student observations made with the naked eye and scientific equipment. Scientific literature will be utilized to determine whether or not a variety of hypotheses can be confirmed. Students will have opportunities to use software and the Internet to explore our universe. Experiences with observatories and planetaria may be included.

Research in Astronomy (semester)

This one-semester course is designed to engage students in scientific inquiry in astronomy. Students will use the tools of the astronomer to conduct their own astronomical research. Each student will be engaged in an authentic research project as they learn about the Sun, the solar system, and the universe beyond. Course requirements include a scientific investigation, a research paper and a presentation about the results of their research. The course will also focus on current events in the field of astronomy and students will work closely with mentor astronomers throughout the course.

Introduction to Robotic Systems (semester) (course fee - \$5)

Introduction to Robotic Systems is an interactive, hands-on semester course that explores technology systems using robotics as a framework. The class examines the basics of structural, fluid and electrical systems and applies this knowledge to design and construct a working model of a 3-axis hydraulic robot. Principles of problem solving are introduced in the design phase and revisited during an introduction to the programming lab at the end of the semester. Machine tool use and safety is an integral part of this course.

Applied Robotic Engineering (semester) (course fee - \$5)

Applied Robotic Engineering is the second level robotics course. Students may elect to take this course even if they have no prior experience with robotics. Applied Robotic Engineering builds on the physics concepts introduced in Applied Aerospace Investigations 6 & 7 and Science 6/7 & 7/8 to develop working solutions to technical challenges using LEGO's® and the Mindstorms® RCX. A structured approach to problem solving is the underlying theme in this course and is the framework upon which foundations of programming is applied.

Applied Robotic Programming (semester) (pre-requisite – Applied Robotic Engineering) (semester)

Applied Robotic Programming is the culminating course in this strand that concentrates on programming solutions to practical problems using RoboLab® Software and Visual Basic®. This course builds on the “drag and drop” programming skills developed in Applied Robotic Engineering and is designed to prepare students for high school computer science and engineering programs. As a culminating project, students will research current and future applications of robots and will program their robot to demonstrate this application.

Principles of Flight (Semester) (course fee - \$10)

In this experienced-based course, students will explore the principles of flight through the designing and building of model aircraft and the use of flight simulator software. Students will study the history of flight, types of aircraft, and aircraft design. Problem solving and critical thinking skills will be used to investigate real-world problems in aviation. Technical reading and writing skills will be integrated into the course to extend student understandings of flight.

ART

Studio Art – Grade 7 (semester) (course fee - \$10)

Students pursue a planned sequence of art activities that develop their skills in using art elements and principles when creating, discussing, and critiquing art. Observation and drawing skills improve as students learn ways to depict still life or posed figures using basic shapes and proportional relationships. Students will examine art from other cultures and other periods in history. Students will create artwork in an extended group project based on the school's aerospace theme.

Students develop an awareness of the effects of light and shadow on subjects and learn techniques to create contrast, unity, variety, and emphasis. Through studies of art from various cultures and historical periods, students become aware of unique styles, universal subjects, and themes. Students engage in design studies before beginning their final projects. They select, apply, and communicate criteria for making aesthetic judgments about their own work and the work of others. Students will create artwork using a variety of drawing, painting, and sculpture making materials and processes.

COMPUTERS

Computer Applications – Grade 7 (semester)

Computer Applications provides students with active learning experiences related to the productive use of computer-based applications. Students use word processing, desktop publishing, spreadsheet, desktop presentation, Web page development, and Internet research skills to complete meaningful and authentic projects. This course focuses on the selection and use of appropriate technology tools and resources to accomplish a variety of tasks and solve problems. Course outcomes are based upon national and state technology standards.

MUSIC

Guitar – Grade 7 (full year)

This class is for students of all levels. Instruction starts with the most basic aspects of the guitar and moves through the most advanced. Both pick style and classical (finger styles) are included. Reading music and basic music theory is part of the class. Students begin with reading single melodic lines. From there they develop harmonic concepts

and learn chords. They will perform in ensemble settings performing traditional folk styles, classical styles, rock and other contemporary styles.

Beginning Band – Grade 7 (full year)

The primary function of the music curriculum is to establish a foundation for a life long relationship with music. Within the curriculum, opportunities for both individual and group experiences occur when performing, creating and expressing musical concepts. Aesthetic values are developed with the application of specific criteria. Beginning band provides students the opportunity to begin their training on woodwind, brass, or percussion instruments. Participation in all concerts and performances is mandatory.

Beginning Orchestra – Grade 7 (full year)

This course stresses basic tonal production and establishes a foundation for the development of technical skills. Students perform in small groups and also solo in class to gain confidence. Scale and rhythmic studies combined with pitch identification, dynamics and tone color are developed. Beginning orchestra provides students the opportunity to begin their training on string instruments including violin, viola, cello, or bass. Participation in all concerts and performances is mandatory.

Intermediate Band/Orchestra - Grade 7 (full year)

Students refine skills and develop more advanced performance techniques. The development of technical skills necessary to perform Grade 2 level music is stressed. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. The MCPS middle school intermediate band/orchestra may be organized into several small groups of different instrument types, with provisions for combining the groups for public performance. Students 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 affecting the creation of the music they are studying. They begin to develop aesthetic criteria for measuring the quality of instrumental performance. Students may be able to attend live performances. Participation in all concerts and performances is mandatory.

Prerequisite: Attainment of outcomes for Beginning Orchestra or Beginning Band.

Advanced Band/Orchestra – Grade 8 (full year)

Advanced Band/Advanced Orchestra students develop and refine their technical skills in order to perform music at the Grade 2 to Grade 3 level of difficulty. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. Students learn the social, cultural, and intellectual influences reflected in the musical works they are studying and discuss performance styles and musical forms of corresponding historical periods. The study of music theory includes performance and recognition of major scales, diatonic and chromatic intervals, and simple melodic dictation. The critical listening skills that are developed as a result of preparation for instrumental performance are used to help the student formulate criteria for effectively evaluating his/her own performance as well as the performance of others. Students begin to assume leadership roles within the large performing ensemble. Exploratory experience may be offered in orchestra, jazz ensemble, and solo and ensemble performance. Participation in all concerts and performances is mandatory.

Prerequisite: Attainment of outcomes for Intermediate Orchestra or Intermediate Band.

Note: It is expected that students will rent or purchase an instrument to use in any instrumental music class. Students who qualify may contact the teacher to borrow an instrument. However, only a limited number of instruments are available in the school.

8th Grade Courses

Course Descriptions – 8th Grade Required Courses

ENGLISH

English 8

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 and 7 and involves greater rigor and challenge in instruction. Also, there is an increasing complexity in the material selected as the foundation for the study of English, as students prepare for the high school experience and the Maryland State Department of Education's English I High School Assessment. Students in English 8 examine language and literature in the context of exploring the world and new ideas. The themes studied are Journeys, Community, Responsibility, and Discoveries. Students read, analyze, and study different genres related to each of the themes and complete required common tasks. The common tasks focus primarily on the writing process (highlighting the informative and persuasive intents) and they include the use of information, word processing, and presentation technology to address a variety of language skills. Students are given opportunities to present their work both orally and with the use of technology. Instruction in reading and writing strategies, grammar, and vocabulary is embedded in each unit. English 8 prepares students—through activities integrated into each thematic unit—for formal county, state, and national assessments and the Maryland High School Assessments.

Advanced English (1.0 high school English elective credit)

This course is designed for able and motivated students with a lively interest in the power and versatility of language. In preparation for advanced high school English courses, students read challenging texts written in various time periods and rhetorical contexts, making interdisciplinary connections with historical events and concepts developed in their 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. Students who successfully complete both semesters and pass the semester B final exam will earn one elective credit toward graduation.

MATHEMATICS

The comprehensive mathematics program sequence for grades 6-12 can be found in the Middle School Program Brochure. This document can be found online at www.mcps.k12.md.us/curriculum/middleschool/brochure.shtm.

Algebra 1 (1.0 high school math credit)

Algebra 1 examines the basic structure of real numbers, algebraic expressions, and functions. The topics studied are linear equations, inequalities, functions and systems, quadratic equations and functions, polynomial expressions, data analysis, probability, and properties of functions. Mathematical modeling of real-life problems and problem solving are major themes of the course. A graphing calculator is used throughout this course. A county-wide exam is administered at the end of each semester and the High School Assessment (HSA) is administered in the spring. A passing score on the Algebra HSA is required for graduation. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

Honors Geometry (prerequisite – Algebra 1) (1.0 high school math credit)

Geometry is studied as a mathematical system through the deductive development of relationships in the plane and space. Students formalize their understanding of geometric concepts, including congruence and similarity, circle chords, secants and tangent segments, parallel and perpendicular lines, angle and side measures in polygons, proofs, logic, transformations, the Pythagorean Theorem, constructions, coordinate geometry, and surface area and volume of solids. A graphing calculator is used throughout this course. A county-wide exam is administered at the end of each semester. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

Algebra 2 with Analysis (prerequisite – Honors Geometry) (1.0 high school math credit)

Algebra 2 is the study of the complex number system and functions. Real-world problems are discussed, represented, and solved using advanced algebraic techniques, incorporating technology. The properties and algebra of functions, including polynomial, exponential, logarithmic, piece-wise, radical, and rational, are analyzed and applied, as well as conics, matrices, systems of equations, sequences, and series. A graphing calculator is used throughout this course. A county-wide exam is administered at the end of each semester. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

SCIENCE

Matter & Energy, A/B (1.0 high school physical science credit)

This course emphasizes the development of observation, experimentation, and analytic skills applicable to succeeding in laboratory courses in high school science. Matter and Energy A includes scientific skills and processes, properties of waves, forces, motion, electricity, and magnetism. Matter and Energy B includes properties of matter, heat, and atomic and nuclear structure. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

Physics A/B, Honors (Prerequisite – Attainment of the outcomes of Geometry A/B or concurrent enrollment) (1.0 high school physical science credit)

In this course students investigate physical laws and theories, relationships of physical phenomena, and the interrelationships of physics to other fields of human endeavor. Physics includes topics in vectors, kinematics, dynamics, energy, momentum, thermodynamics, electricity and magnetism, waves, and quantum physics. Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

AEROSPACE

Aerospace Design & Technology

This course is designed as a co-requisite course to Honors Physics and Matter & Energy at the middle school level. Students will interact with real time data to apply the physics and chemistry concepts that are utilized in aerospace design. Specific content indicators from Honors Physics and Matter & Energy will be taught in focused mini-lessons that include direct instruction, hands-on laboratory experiences, and computer modeling. Working with aerospace industry partners, students will also conduct individual and team research in a culminating project.

SOCIAL STUDIES

Advanced U.S. History 8

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.

GT U.S. History 8

The social studies program in middle school builds chronological and thematic understanding of world and United States history, while also developing the content and concepts of geography, economics, political systems, and culture. Each social studies unit is organized around a historical strand and a social studies content topic. This mix of modern content and the lessons of history provide the background knowledge and thinking skills necessary to prepare students for high school instruction and the duties of a citizen. In Grade 8, American history is studied to Reconstruction. Grade 8 curricular units include: Democracy: Political Systems of the People 1763 - 1783, Creating a National Political System and Culture 1783-1815, Geographic and Economic Changes Shape the Nation 1815 – 1850, and A Nation Divided and Rebuilt 1840-1877. This is the first of a two-year sequence that continues in Grade 9. 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.

PHYSICAL EDUCATION/HEALTH

Physical Education 8

Middle school students participate in a comprehensive physical education program. The amount of time devoted to each instructional component varies according to the developmental needs of students, their grade level, and the physical education teacher's special interests. By the end of Grade 8, students should be able to do the following:

- Demonstrate improved skill levels in team, individual, dual, dance, and personal development activities.
- Demonstrate game strategies in individual, dual, and team play.
- Continue to analyze personal levels of physical fitness and practice skills previously developed to increase these levels of fitness.
- Know the rules of safety and practice them in all activities.
- Accept the responsibility when asked to lead and be supportive of others when in a leadership role.
- Accept the responsibility when asked to follow and be supportive of others when in a followership role.
- Demonstrate good sports etiquette, teamwork, and cooperation.
- Begin to develop an appreciation for a variety of organized sports activities as a participant and a spectator.
- Continue to display positive behavior and apply appropriate decision-making skills.

Health Education 8

Today's students are growing up in a world filled with hazards that were either unknown or largely ignored only a few years ago. Health education instruction in middle school supports what students learn at home about good health and safety practices by providing them with accurate information appropriate for their age group. The program is designed to help students develop good personal and social skills and positive attitudes about health that will help guide them through their formative years to adulthood. Comprehensive health education includes the following six units: mental health; tobacco, alcohol and other drugs; nutrition and fitness; safety and injury prevention; family life and human sexuality; and disease prevention and control.

Students in Grade 8 receive nine weeks of health education and the two focus topics are family life and human sexuality and disease prevention and control. Special emphasis on teen depression is included in Grade 8 through Red Flags, a collaborative project with the Mental Health Association of Montgomery County. Parents of Grade 8 students will receive information about the family life and human sexuality unit of instruction prior to the start of classroom instruction. Information about teen pregnancy prevention and sexually transmitted diseases is included in Grade 8 health education, and parents must sign a permission form for their child to participate in this unit of instruction. If a parent objects to the content of the instruction and indicates that objection on the permission form, their 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 sexually transmitted diseases.

Course Descriptions – 8th Grade Elective Courses

READING

Reading 8

The Reading 8 curriculum extends the reading strategies framed in previous reading and content courses. This curriculum is designed primarily for readers who experience difficulty comprehending grade-level material and who wish to improve their reading comprehension of expository text as they prepare for the demands of high school. Students apply research-based reading strategies as they read for information on a variety of topics to identify their own interests and strengths and the areas of study and careers they may wish to pursue in the future. Students will conduct research using electronic and traditional texts to develop their ability to understand and evaluate the demanding expository texts they will encounter in high school.

FOREIGN LANGUAGE

The goal of the Parkland Magnet Middle School foreign language program is to educate students in a language and culture in order to make them knowledgeable and active members of a global society. Students will learn to use foreign languages for meaningful communication in both written and spoken form. The foreign language program emphasizes language as it is used in real life situations that they are likely to encounter. Through foreign language study, students develop sensitivity to the cultural and linguistic heritage of other groups and become prepared to

participate in a society characterized by linguistic and cultural diversity. Middle school students that are not enrolled in reading are encouraged to enroll in a foreign language course. The languages available at Parkland are Mandarin Chinese, French, and Spanish. **All foreign language courses are high-school level courses that include a county-wide exam at the end of each semester.** Successful completion includes:

- Successfully pass both semesters of the course
- Pass the countywide semester B final examination

Students interested in the International Baccalaureate Program at Richard Montgomery High School must be enrolled or have completed Level 1 or higher of Chinese, French or Spanish by Grade 8. Native speakers of Chinese, French or Spanish may also be eligible without the Level 1 foreign language requirement.

Chinese 1B (full year) (Prerequisite – successful completion of Chinese 1A) (0.5 high school foreign language credit)

Students begin to learn to communicate orally and in written form about their personal life. Emphasis is on vocabulary development, simple grammatical structures, and the basic culture of the Chinese people. Learning topics include family, daily routine, and food preferences.

French 1A/B or Spanish 1 A/B (full year) (1.0 high school foreign language credit)

Students will be introduced to basic vocabulary and structures in the language through developing communication skills to discuss the topics of greetings, personal information, pastimes, school, food, family, travel, community and clothing. Cultural perspectives will be introduced.

Chinese 2A/B or French 2A/B or Spanish 2A/B (full year) (1.0 high school foreign language credit)

Students will continue to develop communication skills in the language using more complex vocabulary and structures. Students will compare their own lives to the lives of people in the target language cultures. Authentic texts will be introduced. Students will be expected to communicate primarily in the target language.

French 3A/B or Spanish 3A/B (full year) (1.0 high school foreign language credit)

This is a rigorous course preparing students for advanced language in the high school. Students will be expected to communicate orally and in writing accurately in the target language to discuss a wide range of topics including the environment, performing arts, fitness and literature.

8th Grade Elective Courses are paired as options. The options available are:

- Option 1** – Applied Robotic Programming (sem) & Research in Astronomy (sem)
- Option 2** – Computer Art 8 (sem) & Principles of Flight (sem)
- Option 3** – Introduction to Engineering Design (year)
- Option 4** – Computer Applications (sem) & Specialty Art A or B (sem)
- Option 5** – Guitar 8 (year)
- Option 6** – Intermediate or Advanced Band (year)
- Option 7** – Intermediate or Advanced Orchestra (year)

AEROSPACE ELECTIVES

Research in Astronomy (semester)

This one-semester course is designed to engage students in scientific inquiry in astronomy. Students will use the tools of the astronomer to conduct their own astronomical research. Each student will be engaged in an authentic research project as they learn about the Sun, the solar system, and the universe beyond. Course requirements include a scientific investigation, a research paper and a presentation about the results of their research. The course will also focus on current events in the field of astronomy and students will work closely with mentor astronomers throughout the course.

Applied Robotic Engineering (semester) (course fee - \$5)

Applied Robotic Engineering is the second level robotics course. Students may elect to take this course even if they have no prior experience with robotics. Applied Robotic Engineering builds on the physics concepts introduced in

Applied Aerospace Investigations 6 & 7 and Science 6/7 & 7/8 to develop working solutions to technical challenges using LEGO's® and the Mindstorms® RCX. A structured approach to problem solving is the underlying theme in this course and is the framework upon which foundations of programming is applied.

Applied Robotic Programming (semester) (Pre-requisite – Robotic Engineering)

Applied Robotic Programming is the culminating course in this strand that concentrates on programming solutions to practical problems using RoboLab® Software and Visual Basic®. This course builds on the “drag and drop” programming skills developed in Applied Robotic Engineering and is designed to prepare students for high school computer science and engineering programs. As a culminating project, students will research current and future applications of robots and will program their robot to demonstrate this application.

Principles of Flight (semester) (course fee - \$10)

In this experienced-based course, students will explore the principles of flight through the designing and building of model aircraft and the use of flight simulator software. Students will study the history of flight, types of aircraft, and aircraft design. Problem solving and critical thinking skills will be used to investigate real-world problems in aviation. Technical reading and writing skills will be integrated into the course to extend student understandings of flight.

Introduction to Engineering Design (full-year course) (1.0 high school technology credit)

Introduction to Engineering Design is an introductory course which develops student problem solving skills with an emphasis placed on the development of three-dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn a problem solving design process and how it is used in industry to manufacture a product. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. The techniques learned and equipment used is state of the art and is currently being used by engineers throughout the United States.

ART

Computer Art - Grade 8 (semester) (course fee - \$15)

Students pursue a planned sequence of activities that develop their skills in using the computer and various peripherals as tools for creating artworks using art elements and principles. They learn ways to create original artwork, combine artwork with text, and design several artworks for specified purposes.

Students develop an awareness of the computer as an art tool, and learn techniques to create contrast, unity, variety, and emphasis. Through studies of computer generated images, including animation, students become aware of the use of the computer in art related industries. Students will also create artwork in an extended group project based on the school's aerospace theme.

Students learn authentic processes employed by professional artists and engage in practical exercises before completing final projects. Students apply and communicate criteria for making aesthetic judgments about their own artwork and the work of others.

Specialty Art A or B Grade 8 (semester) (course fee - \$15)

Students may enroll in one semester course of in-depth study in one of the specialized areas:

- Specialty Art A: Drawing and Painting
- Specialty Art B: Ceramics and Sculpture

By the end of specialty art, students should be able to do the following:

- Perform intermediate and advanced skills in the activity selected.
- Apply knowledge of the principles of design to the creation of artwork.
- Select styles or approaches best suited to the expression or communication of ideas.
- Demonstrate knowledge of contemporary artists, artists from other cultures, and artists from historical periods.
- Define and use professional vocabulary for art tools, materials, and processes.
- Demonstrate good craftsmanship in the execution of projects.
- Use authentic art vocabulary while discussing and critiquing one's own work and that of others.

- Participate in group activities and critiques addressing art products based on the aerospace theme.
- Demonstrate safety and responsibility in the care and use of art materials, tools, equipment, and the art room.
- Prepare artwork for display.

COMPUTERS

Computer Applications – Grade 8 (semester)

Computer Applications provides students with active learning experiences related to the productive use of computer-based applications. Students use word processing, desktop publishing, spreadsheet, desktop presentation, Web page development, and Internet research skills to complete meaningful and authentic projects. This course focuses on the selection and use of appropriate technology tools and resources to accomplish a variety of tasks and solve problems. Course outcomes are based upon national and state technology standards.

MUSIC

Guitar – Grade 8 (full year)

This class is for students of all levels. Instruction starts with the most basic aspects of the guitar and moves through the most advanced. Both pick style and classical (finger styles) are included. Reading music and basic music theory is part of the class. Students begin with reading single melodic lines. From there they develop harmonic concepts and learn chords. They will perform in ensemble settings performing traditional folk styles, classical styles, rock and other contemporary styles.

Intermediate Band/Orchestra - Grade 8 (full year)

Students refine skills and develop more advanced performance techniques. The development of technical skills necessary to perform Grade 2 level music is stressed. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. The MCPS middle school intermediate band/orchestra may be organized into several small groups of different instrument types, with provisions for combining the groups for public performance. Students 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 affecting the creation of the music they are studying. They begin to develop aesthetic criteria for measuring the quality of instrumental performance. Students may be able to attend live performances. Participation in all concerts and performances is mandatory.

Prerequisite: Attainment of outcomes for Beginning Orchestra or Beginning Band.

Advanced Band/Orchestra – Grade 8 (full year)

Advanced Band/Advanced Orchestra students develop and refine their technical skills in order to perform music at the Grade 2 to Grade 3 level of difficulty. Emphasis is placed on developing formal rehearsal decorum, following a conductor, and developing pitch and rhythmic security in preparation for performing an independent part in the traditional band or orchestra ensemble. Students learn the social, cultural, and intellectual influences reflected in the musical works they are studying and discuss performance styles and musical forms of corresponding historical periods. The study of music theory includes performance and recognition of major scales, diatonic and chromatic intervals, and simple melodic dictation. The critical listening skills that are developed as a result of preparation for instrumental performance are used to help the student formulate criteria for effectively evaluating his/her own performance as well as the performance of others. Students begin to assume leadership roles within the large performing ensemble. Exploratory experience may be offered in orchestra, jazz ensemble, and solo and ensemble performance. Participation in all concerts and performances is mandatory.

Prerequisite: Attainment of outcomes for Intermediate Orchestra or Intermediate Band.

Note: It is expected that students will rent or purchase an instrument to use in any instrumental music class. Students who qualify may contact the teacher to borrow an instrument. However, only a limited number of instruments are available in the school.

6th Grade Course Selection Worksheet

All courses are subject to cancellation if there is not sufficient student demand, staffing, or pending budget approval.

Required Courses Grade 6	Choose one course in each department for a total of 6 year-long courses.	Write your selected required courses below.
English	GT English 6 English 6 ESOL 1, 2, or 3	1. _____
Math	Algebra 1 ^{1,2} Investigations in Mathematics Math 7 Math 6	2. _____
Science	GT Science 6/7 Science 6/7	3. _____
Aerospace	Applied Aerospace Investigations 6	4. <u>Applied Aerospace Investigations 6</u>
World Studies	GT World Studies 6	5. <u>GT World Studies 6</u>
Physical Education/Health	Physical Education 6/Health 6	6. <u>Physical Education 6/Health 6</u>
Elective Courses Grade 6	Choose elective courses.	Write your selected elective courses below.
Reading – full year or Foreign Language – full year	GTReading 6 Reading 6 or Chinese 1A ¹ French 1A/B ¹ Spanish 1A/B ¹	7. _____
Elective Options	<u>Option 1:</u> Astronomy and Space Exploration (sem) & Introduction to Robotic Systems (sem) <u>Option 2:</u> Art 6 (sem) & Introduction to Computers (sem) <u>Option 3:</u> Beginning or Intermediate Band (year) <u>Option 4:</u> Beginning or Intermediate Orchestra (year)	8. _____ <b style="text-align: center;">Write your alternate choices of electives in order of preference below. _____ _____ _____

¹ High school credit upon successful completion of course requirements and passing grade on final exam

² MD High School Assessment (HSA) administered during Spring semester

7th Grade Course Selection Worksheet

All courses are subject to cancellation if there is not sufficient student demand, staffing, or pending budget approval.

Required Courses Grade 7	Choose one course in each department for a total of 6 year-long courses.	Write your selected required courses below.
English	Advanced English 7 English 7 ESOL 1, 2, or 3	1. _____
Math	Honors Geometry ¹ Algebra 1 ^{1,2} Investigations in Mathematics Math 7	2. _____
Science	GT Science 7/8 Science 7/8	3. _____
Aerospace	Applied Aerospace Investigations 7	4. <u>Applied Aerospace Investigations 7</u>
World Studies	Advanced World Studies 7	5. <u>Advanced World Studies 7</u>
Physical Education/Health	Physical Education 7/Health 7	6. <u>Physical Education 7/Health 7</u>
Elective Courses Grade 7	Choose elective courses that add up to a total of 2 year-long courses.	Write your selected elective courses below.
Reading – full year or Foreign Language – full year	Reading 7 or Chinese 1A ¹ Chinese 1B ¹ French 1A/B ¹ French 2 A/B ¹ Spanish 1A/B ¹ Spanish 2A/B ¹	7. _____
Elective Options	Option 1: Astronomy and Space Exploration (sem) & Introduction to Robotic Systems (sem)	8. _____
	Option 2: Applied Robotic Engineering (sem) & Principles of Flight (sem)	Write your alternate choices of elective in order of preference below.
	Option 3: Applied Robotic Engineering (sem) & Research in Astronomy (sem)	_____
	Option 4: Art 7 (sem) & Computer Applications (sem)	_____
	Option 5: Guitar 7 (year)	_____
	Option 6: Beginning or Intermediate or Advanced Band (year)	_____
	Option 7: Beginning or Intermediate or Advanced Orchestra (year)	_____

¹ High school credit upon successful completion of course requirements and passing grade on final exam

² MD High School Assessment (HSA) administered during Spring semester

8th Grade Course Selection Worksheet

All courses are subject to cancellation if there is not sufficient student demand, staffing, or pending budget approval.

Required Courses Grade 8	Choose one course in each department for a total of 6 year-long courses.	Write your selected required courses below.
English	Advanced English 8 ¹ English 8 ESOL 1, 2, or 3	1. _____
Math	Algebra 2 ¹ Honors Geometry ¹ Algebra 1 ^{1,2}	2. _____
Science	Physics ¹ Matter & Energy ¹	3. _____
Aerospace	Aerospace Design & Technology	4. <u>Aerospace Design & Technology</u>
World Studies	Advanced U.S. History 8 GT U.S. History 8	5. _____
Physical Education/Health	Physical Education 8/Health 8	6. <u>Physical Education 8/Health 8</u>
Elective Courses Grade 8	Choose elective courses that add up to a total of 2 year-long courses.	Write your selected elective courses below.
Reading – full year or Foreign Language – full year	Reading 8 or Chinese 1B ¹ Chinese 2A/B ¹ French 1A/B ¹ French 2A/B ¹ French 3A/B ¹ Spanish 1A/B ¹ Spanish 2A/B ¹ Spanish 3A/B ¹	7. _____
Elective Options	Option 1: Applied Robotic Programming (sem) & Research in Astronomy (sem) Option 2: Computer Art (sem) & Principles of Flight (sem) Option 3: Introduction to Engineering Design (year) Option 4: Specialty Art A: Drawing and Painting (sem) & Computer Applications (sem) Option 5: Specialty Art B: Ceramics and Sculpture (sem) & Computer Applications (sem) Option 6: Guitar 8 (year) Option 7: Intermediate or Advanced Band (year) Option 8: Intermediate or Advanced Orchestra (year)	8. _____ <div style="background-color: #cccccc; text-align: center; padding: 5px;">Write your alternate choices of elective in order of preference below.</div> _____ _____ _____ _____ _____

¹ High school credit upon successful completion of course requirements and passing grade on final exam

² MD High School Assessment (HSA) administered during Spring semester

